space for photo

The Verde Watershed

This watershed is defined by the Verde River drainage that flows into the Salt River, including Big Chino Wash and its tributaries. The Verde River and many of it tributaries are perennial waters.

This 6,624 square mile watershed has an approximate population of 153,000 people (2000 census). Although this is only 3% of the state population, several communities are located in this watershed: Payson, Sedona, Cottonwood, Verde Valley, Prescott, and the southern outskirts of Flagstaff. Land ownership is approximately: 23% private land, 10% state land, 65% federal land, and 2% Tribal land. Primary land uses are open range grazing, irrigated agriculture, recreation, forestry, and some mining.

Elevations range from more than 12,000 feet (above sea level) in the San Francisco Mountains to about 1,600 feet as the Verde River flows into the Salt River. The watershed is split between warmwater aquatic communities below 5,000 feet, and coldwater communities above 5,000 feet where perennial waters exist.

The assessment – Assessments were completed for 45 stream reaches and 14 lakes in this watershed. Of the 510 stream miles assessed, 31 miles were attaining all uses (two reaches), and 72 miles (seven reaches) were assessed as impaired or not attaining a use. Of the 4,898 lake acres assessed, none were attaining all uses, and 260 acres (three lakes) were assessed as impaired or not attaining a use. All others were inconclusive or attaining some uses.

A watershed assessment map follows on the next page, illustrating stream and lake assessments by category. The Verde **monitoring table (Table 23)** following the map summarizes the water quality data used in the assessment. It is followed by the **assessment table (Table 24)**, which bridges current assessments with past assessments and impaired water identification. Important to note in this table are comments regarding previous 303(d) lists (what has been added and removed), category designations (1 through 5), references to potential actions by EPA, and status of TMDLs.

More detailed information on how to use these tables can be found at the beginning of this chapter (p. IV-1). Assessment methods and criteria can be found in Chapter III.

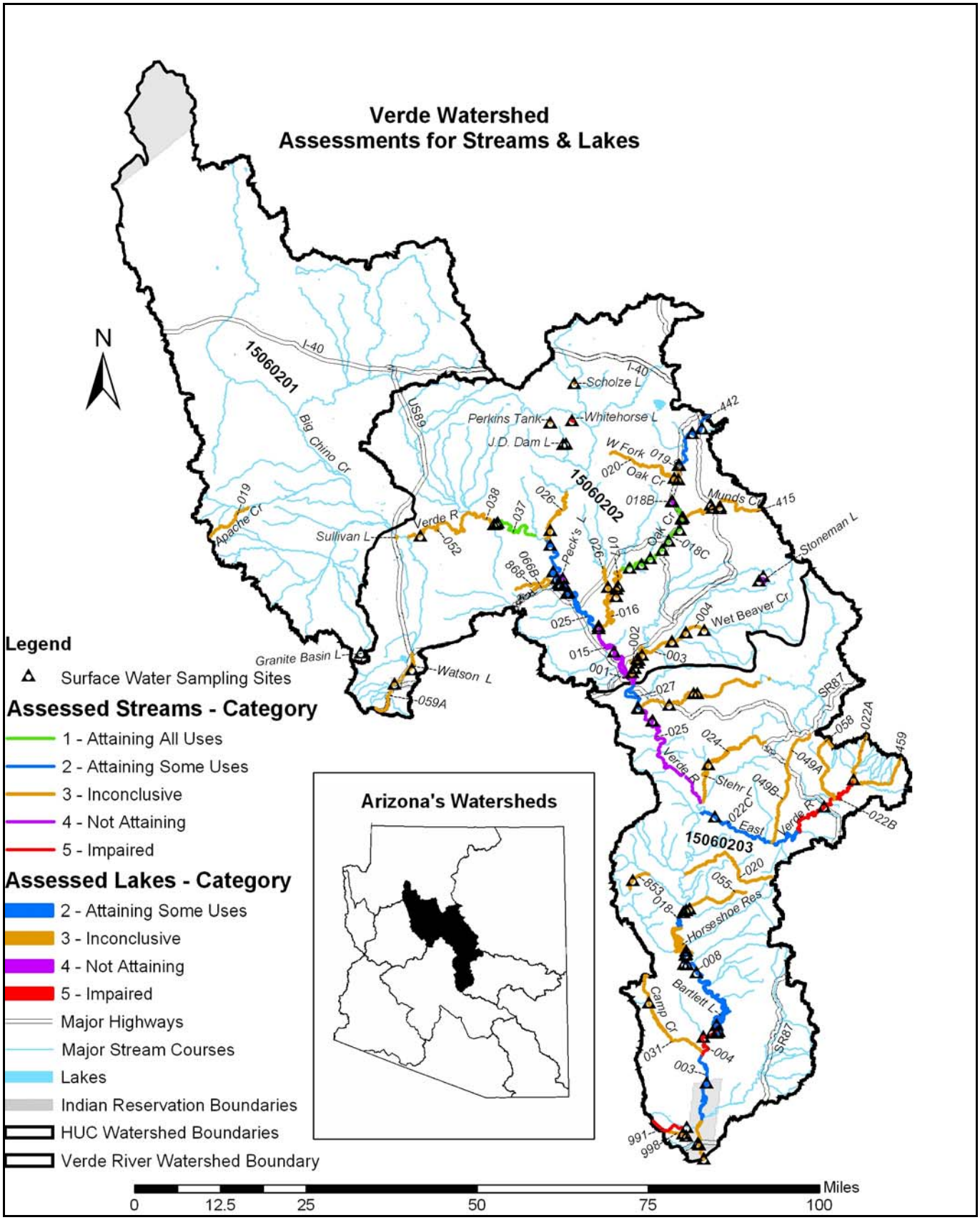

Figure 24. Watershed monitoring and assessments

TABLE 23. VERDE WATERSHED -- 2004 ASSESSMENT MONITORING DATA

STREAM NAME SEGMENT WATERBODY ID DESIGNATED USES	AGENCY AND PROGRAM SITE DESCRIPTION SITE CODE ADEQ DATABASE ID	YEAR SAMPLED NUMBER AND TYPE OF SAMPLES	EXCEEDANCES OF STANDARDS BY SITE					
			PARAMETER UNITS	STANDARD (DESIGNATED USE)	RANGE OF RESULTS	FREQUENCY EXCEEDED	DESIGNATED USE SUPPORT	COMMENTS
STREAM MONITORING DATA								
Beaver Creek Dry Beaver Creek - Verde River AZ15060202-002 A&Ww, FC, FBC, AgL	ADEQ TMDL Program At SILT0001 VRBEV003.27	1999 - 4 partial suite	Turbidity (former standard) NTU	50 (A&Ww)	5 - 190	1 of 3		
	ADEQ Ambient Monitoring and TMDL Program at Camp Verde VRBEV003.18 100496	1998 - 3 field 1999 - 5 field + 1 partial suite	Turbidity (former standard) NTU	50 (A&Ww)	2 - 117	3 of 8		
	ADEQ TMDL Program Montezuma's Castle VRBEV002.62 100706	1999 - 5 field + 1 partial	Turbidity (former standard) NTU	50 (A&Ww)	2 - 218	1 of 6		
	USGS Ambient Monitoring VRBEV02.44 101542	2002 - 1 partial suite	No exceedances					
	ADEQ TMDL Program at Foam0001 VRBEV002.02	2000 - 2 partial suites	No exceedances					
	ADEQ Ambient Monitoring and TMDL Program VRBEV001.28 101346	1999 - 6 partial suites	No exceedances					
	ADEQ Ambient Monitoring Above Verde River VRBEV000.62 100722	1999 - 1 partial suite	No exceedances					
	Summary Row **A&Ww Inconclusive** **FC Inconclusive** **FBC Inconclusive** **AgL Inconclusive**	**1998-2000** **29 samples** **12 sampling events**	**Turbidity (former standard)** **NTU**	**50** **(A&Ww)**	**2 - 190**	**5 of 26**	**Inconclusive**	**ADEQ and USGS collected a total of 29 samples at 7 sites from 1998-2002. Assessed as "Inconclusive" due to exceedances of the former turbidity standard.** **Reach was on the 2002 303(d) List due to turbidity. The Aquatic and Wildlife use is assessed as "inconclusive" and placed on the Planning List due to exceedances of the former turbidity standard. Monitoring will be scheduled to determine whether suspended sediment or bottom deposit violations are occurring.** **Also on the Planning List due to missing core parameters: *Escherichia coli,* dissolved metals (cadmium, copper, and zinc), and total metals (mercury, copper, and lead).**

TABLE 23. VERDE WATERSHED -- 2004 ASSESSMENT MONITORING DATA

STREAM NAME SEGMENT WATERBODY ID DESIGNATED USES	AGENCY AND PROGRAM SITE DESCRIPTION SITE CODE ADEQ DATABASE ID	YEAR SAMPLED NUMBER AND TYPE OF SAMPLES	EXCEEDANCES OF STANDARDS BY SITE PARAMETER UNITS	STANDARD (DESIGNATED USE)	RANGE OF RESULTS	FREQUENCY EXCEEDED	DESIGNATED USE SUPPORT	COMMENTS
Camp Creek headwaters - Verde River AZ15060203-031 A&Ww, FC, FBC, AgL	ADEQ Biocriteria Program Above Blue Wash confluence VRCMP009.30 100760	1998 - 1 partial suite	No exceedances					
	Summary Row **A&Ww Inconclusive** **FC Inconclusive** **FBC Inconclusive** **AgL Inconclusive**	**1998** **1 sampling event**	**No exceedances**					**Insufficient monitoring data to assess.**
Colony Wash headwaters - Fort McDowell Indian Reservation AZ15060203-998 A&We, PBC	USGS Special Investigation VRCLW001.43 101519	1998 - 1 partial suite	No exceedances					
	Summary Row **A&We Inconclusive** **PBC Inconclusive**	**1998** **1 sampling event**	**No exceedances**					**Insufficient monitoring data to assess.**
East Verde River headwaters - Ellison Creek AZ15060203-022A A&Wc, FC, FBC, DWS, AgI, AgL	ADEQ Ambient Monitoring Above Second Crossing VREVR015.97 100786	1999 - 2 full suites	Turbidity (former standard) NTU	10 (A&Wc)	28 - 54	2 of 2		Lab reporting limits for dissolved copper were too high to use results for assessment.
	Summary Row **A&Wc Inconclusive** **FC Inconclusive** **FBC Inconclusive** **DWS Inconclusive** **AgI Inconclusive** **AgL Inconclusive**	**1999** **2 sampling events**	**Turbidity (former standard)** **NTU**	**10** **(A&Wc)**	**27 - 54**	**2 of 2**		**The reach is assessed as "inconclusive" due to insufficient monitoring data and exceedances of the former turbidity standard. Monitoring will be scheduled to determine whether suspended sediment or bottom deposit violations are occurring. Missing core parameters: dissolved copper.**
East Verde River Ellison Creek - American Gulch AZ15060203-022B A&Ww, FC, FBC, DWS, AgI, AgL	ADEQ / USGS Fixed Station Above Highway 87 bridge VREVR012.28 100474	1998 - 1 partial suite 1999 - 5 full suites 2000 - 3 full suites 2001 - 4 full suites 2002 - 5 full suites	Lead (total) µg/L	15 (DWS, FBC)	<5 - 21	1 of 18		
			Mercury (total) µg/L	0.6 (FC)	<0.5 - 1.2	1 of 18		
			Nitrogen (total) µg/L	3.0 (A&Ww)	<0.05 - 4.6	1 of 18		
			Selenium (total) µg/L	2 (A&Ww chronic)	<5 - 5.3	2 of 2		Lab reporting limits for 16 other samples were too high to use results for assessment.
			Turbidity (former standard) NTU	50 (A&Ww)	2.16 - >1000	3 of 16		
	Summary Row **A&Ww Impaired** **FC Attaining** **FBC Attaining** **DWS Attaining** **AgI Attaining** **AgL Attaining**	**1998-2002** **18 samples** **18 sampling events**	**Lead (total)** **µg/L**	**15** **(DWS, FBC)**	**<5 - 21**	**1 of 18**	**Attaining**	**USGS collected 18 samples in 1998-2002. Assessed as "impaired" due to selenium exceedances.**
			Mercury (total) **µg/L**	**0.6** **(FC)**	**<0.5 - 1.2**	**1 of 18**	**Attaining**	
			Nitrogen (total) **µg/L**	**3.0** **(A&Ww)**	**<0.05 - 4.6**	**1 of 18**	**Attaining**	

TABLE 23. VERDE WATERSHED -- 2004 ASSESSMENT MONITORING DATA

STREAM NAME SEGMENT WATERBODY ID DESIGNATED USES	AGENCY AND PROGRAM SITE DESCRIPTION SITE CODE ADEQ DATABASE ID	YEAR SAMPLED NUMBER AND TYPE OF SAMPLES	EXCEEDANCES OF STANDARDS BY SITE					
			PARAMETER UNITS	STANDARD (DESIGNATED USE)	RANGE OF RESULTS	FREQUENCY EXCEEDED	DESIGNATED USE SUPPORT	COMMENTS
			Selenium (total) µg/L	**2 (A&Ww chronic)**	**<5 - 5.3**	**2 of 2 events**	**Impaired**	
			Turbidity (former standard) NTU	**50 (A&Ww)**	**2.16 - >1000**	**3 of 16**	**Attaining**	
East Verde River American Gulch - Verde River AZ15060203-022C A&Ww, FC, FBC, DWS, AgI, AgL	USGS Station #09507980 Near Childs VREVR001.42 100739	1998 - 6 full suites 1999 - 5 full suites 2000 - 4 full suites 2001 - 4 full suites 2002 - 4 full suites	Arsenic (dissolved) µg/L	360 (A&Ww acute)	4 - 388	1 of 23		Arsenic concentrations naturally high in ground water. Ground water upwelling when surface flows are less than 5 cfs results in high arsenic levels in the stream and is a natural occurrence. Not included in final assessment.
				190 (A&Ww chronic)		2 of 23		
			Arsenic (total) µg/L	50 (DWS, FBC)	4.0 - 394	7 of 23		
			Boron (total) µg/L	630 (DWS)	50 - 1730	4 of 20		
				1000 (AgI)		2 of 20		
			Dissolved oxygen mg/L	>6 (90% saturation) (A&Ww)	5.6 - 10.6	1 of 23		Low dissolved oxygen due to naturally occurring ground water upwelling. Not included in final assessment.
	Summary Row **A&Ww Attaining** **FC Attaining** **FBC Attaining** **DWS Inconclusive** **AgI Attaining** **AgL Attaining**	**1998-2002** **23 samples** **23 sampling events**	**Boron (total) µg/L**	**630 (DWS)**	**50 - 1730**	**4 of 20**	**Inconclusive**	**USGS collected 23 samples in 1998-2002. Assessed as "attaining some uses" and placed on the Planning List due to boron exceedances.** **ADEQ is considering a Use Attainability Analysis for Domestic Water Source due to high levels of arsenic (and possibly boron) that are naturally occurring in the water when an inter-basin transfer of water is <u>not</u> being added to the East Verde from East Clear Creek to maintain flow.**
				1000 (AgI)		**2 of 20**	**Attaining**	
Fossil Creek headwaters - Verde River AZ15060203-024 A&Ww, FC, FBC, AgL	ADEQ Ambient Monitoring Above Salley Mae Wash VRFOS005.67 100785	1999 - 2 full suites	No exceedances					Both samples were collected in the summer.
	Summary Row **A&Ww Inconclusive** **FC Inconclusive** **FBC Inconclusive** **AgL Inconclusive**	**1999** **2 sampling events**	**No exceedances**					**Insufficient monitoring data to assess.**

TABLE 23. VERDE WATERSHED -- 2004 ASSESSMENT MONITORING DATA

STREAM NAME SEGMENT WATERBODY ID DESIGNATED USES	AGENCY AND PROGRAM SITE DESCRIPTION SITE CODE ADEQ DATABASE ID	YEAR SAMPLED NUMBER AND TYPE OF SAMPLES	EXCEEDANCES OF STANDARDS BY SITE					
			PARAMETER UNITS	STANDARD (DESIGNATED USE)	RANGE OF RESULTS	FREQUENCY EXCEEDED	DESIGNATED USE SUPPORT	COMMENTS
Grande Wash headwaters - Ashbrook Wash 15060203-991 A&Ww, FBC, FC (tributary rule)	USGS Special Investigation VRGRW000.30 101596	1998 - 1 full suite 1999 - 1 full suite 2000 - 1 partial suite	*Escherichia coli* CFU/100 ml	235	1000 - >20,000	2 of 2		Lab reporting limits for dissolved cadmium were too high to assess standards.
	Summary Row **A&Ww Inconclusive** **FBC Not attaining** **FC Inconclusive**	**1998 - 2000** **3 sampling events**	***Escherichia coli*** **CFU/100 ml**	**235**	**1000 - >20,000**	**2 of 2 events (in 1999 and 2000)**	**Not attaining**	**USGS collected 3 samples in 1998 - 2000. Assessed as "not attaining" due to *Escherichia coli* exceedances. Fountain Hills WWTP has now changed disposal method to recharge, thereby eliminating discharges to this wash. *E. coli* levels are expected to meet water quality standards for the next assessment. Placed on the Planning List for follow-up monitoring to verify water quality problems have been resolved.** **Also placed on the Planning List due to missing core parameters: dissolved oxygen, turbidity/SSC, dissolved cadmium, and total mercury.**
Granite Creek headwaters - Willow Creek AZ15060202-059A A&Wc, FC, FBC, AgI, AgL	USGS Ambient Monitoring #09502960 VRGRA021.70 101580	1998 - 1 partial suite 1999 - 2 partial suites 2000 - 2 partial suites 2001 - 1 partial suite	*Escherichia coli* CFU/100 ml	235 (FBC single sample max.)	71 - >8000	2 of 4		The lab reporting limits for some cadmium and copper analysis were too high to use results for assessment.
				126 (FBC geometric mean)	71 - >8000	overall geometric mean = 406		One E. coli exceedance was during a very high flow event. (Insufficient samples for 30-day geo mean)
			Dissolved oxygen mg/L	> 7.0 (90% saturation) (A&Wc)	4.3 - 10.8 (53 - 162%)	3 of 5		
			Mercury (dissolved) µg/L	0.01 (A&Wc chronic)	<0.1- 0.3	1 of 2		Lab reporting limit for 2 other mercury samples were too high to use results for assessment.
	AGFD Ambient Monitoring VRGRA021.46	2000 - 1 partial suite	Dissolved oxygen	>7.0 (90% saturation) (A&Wc)	6.2 (77.1%) saturation	1 of 1		May be natural condition. Sample taken in July 2000 during a drought.

TABLE 23. VERDE WATERSHED -- 2004 ASSESSMENT MONITORING DATA

STREAM NAME SEGMENT WATERBODY ID DESIGNATED USES	AGENCY AND PROGRAM SITE DESCRIPTION SITE CODE ADEQ DATABASE ID	YEAR SAMPLED NUMBER AND TYPE OF SAMPLES	EXCEEDANCES OF STANDARDS BY SITE PARAMETER UNITS	STANDARD (DESIGNATED USE)	RANGE OF RESULTS	FREQUENCY EXCEEDED	DESIGNATED USE SUPPORT	COMMENTS
	Summary Row **A&Wc Inconclusive** **FC Inconclusive** **FBC Inconclusive** **AgI Inconclusive** **AgL Inconclusive**	**1998-2001** **7 sampling events**	***Escherichia coli*** **CFU/100 ml**	**235 (FBC)**	**71 - >8000**	**2 of 4 events (in 2000 and 2001)**	**Inconclusive (see comment)**	**USGS and AGFD collected a total of 7 samples at 2 sites in 1998-2001. Assessed as "inconclusive" and placed on the Planning List due to *Escherichia coli* and mercury exceedances, low dissolved oxygen, and missing core parameters: turbidity/SSC, total metals (copper, lead, manganese, and mercury) and dissolved metals (cadmium and copper).** **ADEQ has assessed the FBC designated use as "inconclusive" for the following reasons:** **1. One of the two *E. coli* exceedances was close to the standard (result is 300, standard is 235) and bacterial lab methods provide an estimate of bacteria density (most probable number). (See discussion in Chapter III.)** **2. Need at least 5 bacteria samples within a 30-day period to determine the 30-day geometric mean. (The Impaired Water Identification Rule requires 2 exceedances of the 30-day geometric mean and does not recognize the overall geometric mean established in the newly adopted Surface Water Standards.)**
				126 (FBC - geo mean)	**71 - >8000**	**overall geometric mean = 406**	**Inconclusive (need two exceedances of 30-day geometric mean -- see comment)**	
			Dissolved oxygen mg/L	**>7.0 (90% saturation) (A&Wc)**	**4.3 - 10.8 (53 - 162%)**	**4 of 6**	**Inconclusive**	
			Mercury (dissolved) µg/L	**0.01 (A&Wc chronic)**	**<0.1 - 0.3**	**1 of 2 events**	**Inconclusive**	
Munds Creek headwaters - Oak Creek AZ15060202-415 A&Ww, FC, FBC (tributary rule)	ADEQ TMDL Program Above O'Dell Lake VRMUN004.3	1998 - 3 partial suites	Turbidity (former standard) NTU	50 (A&Ww)	5 - 69	1 of 3		
	ADEQ TMDL Program Southeast trib to O'Dell Lake VRMUN004.1	1998 - 2 partial suites	No exceedances					
	ADEQ TMDL Program West trib of Munds Creek Above Pinewood WWTP VRMUN003.5	1998 - 3 partial suites	Turbidity (former standard) NTU	50 (A&Ww)	5 - 67	1 of 3		
	ADEQ TMDL Program Below Pinewood WWTP VRMUN003.4	1998 - 3 partial suites	No exceedances					
	ADEQ TMDL Program Above Oak Creek VRMUN000.1	1998 - 3 partial suites	No exceedances					
	Summary Row **A&Ww Inconclusive** **FC Inconclusive** **FBC Inconclusive**	**1998** **14 samples** **3 sampling events**	**Turbidity (former standard) NTU**	**50 (A&Ww)**	**4 - 69**	**2 of 14 (same sampling event)**	**Attaining**	**ADEQ collected 14 samples at 5 sites in 1998. Assessed as "inconclusive" and placed on the Planning List due to insufficient seasonal representation and missing core parameters.** **Missing core parameters: dissolved metals (copper, cadmium, and zinc), and total mercury. All samples were collected in March, April, and May.**

TABLE 23. VERDE WATERSHED -- 2004 ASSESSMENT MONITORING DATA

STREAM NAME SEGMENT WATERBODY ID DESIGNATED USES	AGENCY AND PROGRAM SITE DESCRIPTION SITE CODE ADEQ DATABASE ID	YEAR SAMPLED NUMBER AND TYPE OF SAMPLES	EXCEEDANCES OF STANDARDS BY SITE					
			PARAMETER UNITS	STANDARD (DESIGNATED USE)	RANGE OF RESULTS	FREQUENCY EXCEEDED	DESIGNATED USE SUPPORT	COMMENTS
Oak Creek headwaters - West Fork Oak Creek AZ15060202-019 A&Wc, FC, FBC, DWS, AgI, AgL Unique Water	ADEQ TMDL Program Above Pumphouse Wash VROAK025.3	1998 - 4 partial suites	No exceedances					
	ADEQ TMDL Program Below Pumphouse Wash VROAK025.2	1998 - 4 partial suites	Turbidity (former standard) NTU	10 (A&Wc)	1 - 20	2 of 4		
	ADEQ Biocriteria Program Below Cave Springs Camp VROAK023.21 100608	1998 - 1 partial suite	No exceedances					
	Summary Row **A&Wc Inconclusive** **FC Inconclusive** **FBC Inconclusive** **DWS Inconclusive** **AgI Inconclusive** **AgL Inconclusive**	**1998** **9 samples** **5 sampling events**	**Turbidity (former standard)** **NTU**	**10** **(A&Wc)**	**1 - 20**	**2 of 8**	**Inconclusive (see comment)**	**ADEQ collected 9 samples at 3 sites in 1998. Assessed as "inconclusive" and placed on the Planning List due to missing core parameters and exceedances of the former turbidity standard. Monitoring will be scheduled to determine whether suspended sediment or bottom deposit violations are occurring.** **Missing core parameters: total fluoride, total boron, dissolved metals (copper, cadmium, and zinc), and total metals (mercury, arsenic, chromium, lead, manganese, and copper).**
Oak Creek At Slide Rock State Park only AZ15060202-018B A&Ww, FC, FBC, DWS, AgI, AgL Unique Water	ADEQ TMDL Program Above Slide Rock VROAK020.03	1998 - 1 pH, nutrients	No exceedances					
	Slide Rock State Park *Escherichia coli* Monitoring Upstream VROAK020.00A	1998 - 2002 685 *Escherichia coli* samples only	*Escherichia coli* CFU/100 ml	235 (FBC single sample max)	0 - 2419	39 of 682		
	Slide Rock State Park *Escherichia coli* Monitoring Mid-slide VROAK020.00B	1998 - 2002 680 *Escherichia coli* samples only	*Escherichia coli* CFU/100 ml	235 (FBC single sample max)	0 - 2419	32 of 680		
	Slide Rock State Park *Escherichia coli* Monitoring Large Pool VROAK020.00C	1998 - 2002 682 *Escherichia coli* samples only	*Escherichia coli* CFU/100 ml	235 (FBC single sample max)	0 - 2419	43 of 680		
	Slide Rock State Park Foot Bridge *Escherichia coli* Monitoring VROAK020.00D	1998 - 2002 682 *Escherichia coli* samples only	*Escherichia coli* CFU/100 ml	235 (FBC single sample max)	0 - 2419	101 of 682		
	Slide Rock State Park at Highway Bridge *Escherichia coli* Monitoring VROAK020.00E	1998 - 2002 679 *Escherichia coli* samples only	*Escherichia coli* CFU/100 ml	235 (FBC single sample max)	0 - 2419	54 of 682		

TABLE 23. VERDE WATERSHED -- 2004 ASSESSMENT MONITORING DATA

STREAM NAME SEGMENT WATERBODY ID DESIGNATED USES	AGENCY AND PROGRAM SITE DESCRIPTION SITE CODE ADEQ DATABASE ID	YEAR SAMPLED NUMBER AND TYPE OF SAMPLES	EXCEEDANCES OF STANDARDS BY SITE					
			PARAMETER UNITS	STANDARD (DESIGNATED USE)	RANGE OF RESULTS	FREQUENCY EXCEEDED	DESIGNATED USE SUPPORT	COMMENTS
	ADEQ/TMDL Below Slide Rock VROAK019.97	1998 - 1 partial suite	No exceedances					
	Summary Row **A&Ww Inconclusive** **FC Inconclusive** **FBC Not attaining** **DWS Inconclusive** **AgI Inconclusive** **AgL Inconclusive**	**1998-2002** **3408 *Escherichia coli* samples** **2 other sampling events**	***Escherichia coli* CFU/100 ml**	**235 (FBC single sample maximum)**	**0 - 2419**	**269 of 3408 samples 101 of 682 sampling dates**	**Not attaining**	**ADEQ collected 2 samples at 2 sites in 1998. Slide Rock State Park collected a total of 3408 *Escherichia coli* samples at 5 sites in 1998-2002. *Escherichia coli* TMDLs were approved by EPA in 1999.** **Assessed as "not attaining" due to *Escherichia coli* exceedances and placed on the Planning List for TMDL follow-up monitoring and for missing core parameters.** **Also placed on the Planning List due to beach closures following elevated levels of *Escherichia coli*. Beach closures have occurred every summer during the assessment period.** **Missing core parameters: total fluoride, total boron, dissolved metals (copper, cadmium, and zinc), and total metals (mercury, arsenic, chromium, lead, manganese, and copper).**
Oak Creek Below Slide Rock State Park-Dry Creek AZ15060202-018C A&Ww, FC, FBC, DWS, AgI, AgL Unique Water	ADEQ TMDL Program Above Munds Creek VROAK018.3	1998 - 3 partial suites	No exceedances					
	ADEQ TMDL Program Below Munds Creek VROAK018.1	1998 - 3 partial suites	No exceedances					
	ADEQ Ambient Monitoring Below Grasshopper Point VROAK016.57 100459	1998 - 3 partial suites	No exceedances					
	ADEQ Ambient Monitoring At Highway 179 bridge VROAK014.54 100460	1998 - 3 full suites	No exceedances					
	ADEQ Ambient Monitoring At Chavez Crossing VROAK013.11 100461	1998 - 3 full suites	No exceedances					
	ADEQ TMDL Program Below Redrock Crossing VROAK011.4	1998 - 1 partial suites (2 samples, only 2 days apart)	No exceedances					
	ADEQ Biocriteria Program At Red Rock State Park VROAK010.29 100612	1999 - 1 full suite	No exceedances					

TABLE 23. VERDE WATERSHED -- 2004 ASSESSMENT MONITORING DATA

STREAM NAME SEGMENT WATERBODY ID DESIGNATED USES	AGENCY AND PROGRAM SITE DESCRIPTION SITE CODE ADEQ DATABASE ID	YEAR SAMPLED NUMBER AND TYPE OF SAMPLES	EXCEEDANCES OF STANDARDS BY SITE					
			PARAMETER UNITS	STANDARD (DESIGNATED USE)	RANGE OF RESULTS	FREQUENCY EXCEEDED	DESIGNATED USE SUPPORT	COMMENTS
	ADEQ Fixed Station Network At Redrock Crossing VROAK009.33 100492	1998 - 4 full suites 1999 - 4 full suites 2000 - 4 full suites 2001 - 4 full suites 2002 - 4 full suites	Beryllium (total) µg/L	4.0 (DWS, FBC)	<0.5 - 4.1	1 of 20		
			Manganese (total) µg/L	980 (DWS)	<50 - 1300	1 of 20		
			Total Nitrogen mg/L	2.5 Unique Water (A&Ww)	<0.5 - 4.97	1 of 19		
			Total Phosphorus mg/L	0.3 Unique Water (A&Ww)	< 0.02 - 1.5	1 of 20		
			Turbidity (former standard) NTU	50 (A&Ww)	1 - >1000	2 of 20		
	Summary Row **A&Ww Attaining** **FC Attaining** **FBC Attaining** **DWS Attaining** **AgI Attaining** **AgL Attaining**	**1998 - 2002** **37 samples** **25 sampling events**	**Beryllium (total) µg/L**	**4.0 (DWS, FBC)**	**<0.5 - 4.1**	**1 of 29**	**Attaining**	**ADEQ collected 37 samples at 8 sites in 1998-2002. Assessed as "attaining all uses."**
			Manganese (total) µg/L	**980 (DWS)**	**<50 - 1300**	**1 of 29**	**Attaining**	
			Total Nitrogen mg/L	**2.5 Unique Water (A&Ww)**	**<0.5 - 4.97**	**1 of 37**	**Attaining**	
			Total Phosphorus mg/L	**0.3 Unique Water (A&Ww)**	**< 0.02 - 1.5**	**1 of 37**	**Attaining**	
			Turbidity (former standard) NTU	**50 (A&Ww)**	**1 - >1000**	**2 of 37**	**Attaining**	
Oak Creek Dry Creek - Spring Creek AZ15060202-017 A&Ww, FC, FBC, DWS, AgI, AgL Unique Water	ADEQ TMDL Program At Page Springs Bridge VROAK006.4	1998 - 1 partial suite	No exceedances					
	ADEQ Ambient Monitoring Below Page Springs VROAK005.91 100613	1999 - 1 partial suite	No exceedances					
	Summary Row **A&Ww Inconclusive** **FC Inconclusive** **FBC Inconclusive** **DWS Inconclusive** **AgI Inconclusive** **AgL Inconclusive**	**1998 - 1999** **2 sampling events**	**No exceedances**					**Insufficient monitoring data to assess.**

TABLE 23. VERDE WATERSHED -- 2004 ASSESSMENT MONITORING DATA

STREAM NAME SEGMENT WATERBODY ID DESIGNATED USES	AGENCY AND PROGRAM SITE DESCRIPTION SITE CODE ADEQ DATABASE ID	YEAR SAMPLED NUMBER AND TYPE OF SAMPLES	EXCEEDANCES OF STANDARDS BY SITE					
			PARAMETER UNITS	STANDARD (DESIGNATED USE)	RANGE OF RESULTS	FREQUENCY EXCEEDED	DESIGNATED USE SUPPORT	COMMENTS
Oak Creek Spring Creek - Verde River AZ15060202-016 A&Ww, FC, FBC, DWS, AgI, AgL Unique Water	ADEQ TMDL Program Above Mormon Crossing VROAK004.9	1998 - 1 partial suite	No exceedances					
	ADEQ TMDL Program Above Verde River VROAK000.1	1998 - 1 partial suite	No exceedances					
	Summary Row **A&Ww Inconclusive** **FC Inconclusive** **FBC Inconclusive** **DWS Inconclusive** **AgI Inconclusive** **AgL Inconclusive**	**1998** **2 samples** **1 sampling event**	**No exceedances**					**Insufficient monitoring data to assess.**
Oak Creek, West Fork headwaters - Oak Creek AZ15060202-020 A&Wc, FC, FBC, AgL Unique Water	ADEQ Biocriteria Program Above Fourth Trail Crossing VRWOK000.64 100693	1998 - 1 partial suite	No exceedances					
	Summary Row **A&Wc Inconclusive** **FC Inconclusive** **FBC Inconclusive** **AgL Inconclusive**	**1998** **1 sampling event**	**No exceedances**					**Insufficient monitoring data to assess.**
Pumphouse Wash headwaters - Oak Creek AZ15060202-442 A&Wc, FC, FBC (tributary rule)	ADEQ TMDL Program Above Kachina Village VRPMW008.4	1998 - 3 partial suites	Total Phosphorus mg/L	1.0 (A&Ww single sample maximum)	0.21 - 2.04	1 of 3		
			Turbidity (former standard) NTU	50 (A&Ww)	44 - 690	2 of 3		
	ADEQ TMDL Program Below Kachina Village VRPMW007.5	1998 - 3 partial suites	No exceedances					
	ADEQ TMDL Program Above Oak Creek VRPMW002.7	1998 - 4 partial suites	No exceedances					
	ADEQ Fixed Station Network Below Highway 89A bridge VRPMW002.63 100495	1998 - 1 field, dissolved copper and cadmium	No exceedances					
	Summary Row **A&Wc Inconclusive** **FC Inconclusive** **FBC Attaining**	**1998** **11 samples** **5 sampling events**	**Total Phosphorus mg/L**	**1.0 (A&Ww single sample maximum)**	**0.214 - 2.04**	**1 of 10**	**Attaining**	**ADEQ collected 11 samples at 4 sites in 1998. Assessed as "attaining some uses" and placed on the Planning List due to missing core parameters: dissolved metals (copper, cadmium, and zinc), and total mercury.**
			Turbidity (former standard) NTU	**50 (A&Ww)**	**44 - 690**	**2 of 10**	**Attaining**	

TABLE 23. VERDE WATERSHED -- 2004 ASSESSMENT MONITORING DATA

STREAM NAME SEGMENT WATERBODY ID DESIGNATED USES	AGENCY AND PROGRAM SITE DESCRIPTION SITE CODE ADEQ DATABASE ID	YEAR SAMPLED NUMBER AND TYPE OF SAMPLES	EXCEEDANCES OF STANDARDS BY SITE					
			PARAMETER UNITS	STANDARD (DESIGNATED USE)	RANGE OF RESULTS	FREQUENCY EXCEEDED	DESIGNATED USE SUPPORT	COMMENTS
Roundtree Canyon Creek headwaters - Tangle Creek AZ15060203-853 A&Ww, FC, FBC, AgL	ADEQ Biocriteria Program 3 miles above Tangle Creek VRROU001.79 100631	1998 - 1 partial suite	No exceedances					
	Summary Row **A&Ww Inconclusive** **FC Inconclusive** **FBC Inconclusive** **AgL Inconclusive**	**1998** **1 sampling event**	**No exceedances**					**Insufficient monitoring data to assess.**
Spring Creek Coffee Creek - Oak Creek AZ15060202-022 A&Ww, FC, FBC, AgI, AgL	ADEQ Biocriteria Program Near road crossing VRSPN001.36 100650	1998 - 1 partial suite	No exceedances					
	Summary Row **A&Ww Inconclusive** **FC Inconclusive** **FBC Inconclusive** **AgI Inconclusive** **AgL Inconclusive**	**1998** **1 sampling event**	**No exceedances**					**Insufficient monitoring data to assess.**
Sycamore Creek Cedar Creek - Verde River AZ15060202-026 A&Ww, FC, FBC, AgI, AgL	ADEQ Ambient Monitoring Below Summers Springs VRSYW001.4 100199	1998 - 1 partial suite	No exceedances					
	Summary Row **A&Ww Inconclusive** **FC Inconclusive** **FBC Inconclusive** **AgL Inconclusive** **AgI Inconclusive**	**1998** **1 sampling event**	**No exceedances**					**Insufficient monitoring data to assess.**
Sycamore Creek headwaters - Verde River AZ15060203-055 A&Ww, FC, FBC, AgL	ADEQ Biocriteria Program Tributary of Horseshoe Res. VRSYH000.16 100656	1998 - 1 partial suite	No exceedances					
	Summary Row **A&Ww Inconclusive** **FC Inconclusive** **FBC Inconclusive** **AgL Inconclusive**	**1998** **1 sampling event**	**No exceedances**					**Insufficient monitoring data to assess.**
Verde River Granite Creek - Hell Canyon AZ15060202-052 A&Ww, FC, FBC, AgI, AgL	ADEQ Biocriteria Program East of Paulden VRVER095.73 100764	1998 - 1 partial suite	No exceedances					
	Summary Row **A&Ww Inconclusive** **FC Inconclusive** **FBC Inconclusive** **AgI Inconclusive** **AgL Inconclusive**	**1998** **1 sampling event**	**No exceedances**					**Insufficient monitoring data to assess.**

TABLE 23. VERDE WATERSHED -- 2004 ASSESSMENT MONITORING DATA

STREAM NAME SEGMENT WATERBODY ID DESIGNATED USES	AGENCY AND PROGRAM SITE DESCRIPTION SITE CODE ADEQ DATABASE ID	YEAR SAMPLED NUMBER AND TYPE OF SAMPLES	EXCEEDANCES OF STANDARDS BY SITE					
			PARAMETER UNITS	STANDARD (DESIGNATED USE)	RANGE OF RESULTS	FREQUENCY EXCEEDED	DESIGNATED USE SUPPORT	COMMENTS
Verde River Hell Canyon - unnamed reach 15060202-065 AZ15060202-038 A&Ww, FC, FBC, AgI, AgL	ADEQ Ambient Monitoring Above Perkinsville bridge VRVER095.54 100672	1999 - 1 full suite	No exceedances					
	Summary Row **A&Ww Inconclusive** **FC Inconclusive** **FBC Inconclusive** **AgI Inconclusive** **AgL Inconclusive**	**1999** **1 sampling event**	**No exceedances**					**Insufficient monitoring data to assess.**
Verde River unnamed reach 15060202-065 - Railroad Draw AZ15060202-037 A&Ww, FC, FBC, AgI, AgL	USGS Special study VRVER095.74 101569	2002 - 1 nutrients + selenium (dissolved)	No exceedances					
	ADEQ Ambient Monitoring Below Perkinsville Bridge VRVER095.65 100487	1998 - 1 full suite 1999 - 6 full suites 2000 - 3 full suites 2001 - 3 full + 1 partial suite 2002 - 3 full suites	Arsenic (total) µg/L	50 (FBC)	5 - 240	1 of 17		
			Dissolved oxygen mg/L	> 6.0 (90% saturation) (A&Ww)	5.7 - 10.3 (76 - 144 %)	1 of 16		
			Escherichia coli CFU/100 ml	235 (FBC)	0 - 2,300	1 of 15		Exceedance during high flow event.
			Mercury (total) µg/L	0.6 (FC)	<0.5 - 0.79	1 of 17		
			Turbidity (former standard) NTU	50 (A&Ww)	7 - 677	3 of 17		
	Summary Row **A&Ww Attaining** **FC Attaining** **FBC Attaining** **AgI Attaining** **AgL Attaining**	**1998-2002** **18 samples** **18 sampling events**	**Arsenic (total) µg/L**	**50 (FBC)**	**5 - 240**	**1 of 17**	**Attaining**	**ADEQ and USGS collected 18 samples at 2 sites in 1998-2002. Assessed as "attaining all uses."**
			Dissolved oxygen mg/L	**> 6.0 (90% saturation) (A&Ww)**	**5.7 - 10.3 (76 - 144 %)**	**1 of 16**	**Attaining**	
			***Escherichia coli* CFU/100 ml**	**235 (FBC)**	**0 - 2,300**	**1 of 15 events (none in last 3 years)**	**Attaining**	
			Mercury (total) µg/L	**0.6 (FC)**	**<0.5 - 0.79**	**1 of 17**	**Attaining**	
			Turbidity (former standard) NTU	**50 (A&Ww)**	**7 - 677**	**3 of 17**	**Attaining**	
Verde River Sycamore Creek - Oak Creek AZ15060202-025 A&Ww, FC, FBC, AgI, AgL	USGS Fixed Station #09504000 Near Clarkdale VRVER091.61 100738	1998 - 6 full suites 1999 - 4 full suites 2000 - 4 full suites 2001 - 4 full suites 2002 - 5 full suites	*Escherichia coli* CFU/100 ml	235 (FBC)	0 - 240	1 of 23		
			Mercury (dissolved) µg/L	0.01 (A&Ww chronic)	<0.1 - 0.1	1 of 1		

TABLE 23. VERDE WATERSHED -- 2004 ASSESSMENT MONITORING DATA

STREAM NAME SEGMENT WATERBODY ID DESIGNATED USES	AGENCY AND PROGRAM SITE DESCRIPTION SITE CODE ADEQ DATABASE ID	YEAR SAMPLED NUMBER AND TYPE OF SAMPLES	EXCEEDANCES OF STANDARDS BY SITE					
			PARAMETER UNITS	STANDARD (DESIGNATED USE)	RANGE OF RESULTS	FREQUENCY EXCEEDED	DESIGNATED USE SUPPORT	COMMENTS
			Turbidity (former standard) NTU	50 (A&Ww)	0.76 - 61	1 of 23		Lab reporting limits for 22 other mercury samples too high to use results for assessment.
	USGS Monitoring Below Tapco Substation VRVER087.70 101552	1999 - 1 full suite	No exceedances					
	USGS Monitoring Above sewage pond VRVER086.92 101549	1999 - 1 full suite	No exceedances					
	USGS Monitoring At sewage pond VRVER086.81 101548	1999 - 1 full suite	No exceedances					
	USGS Monitoring Below diversion dam VRVER086.62 101550	1999 - 1 full suite	No exceedances					
	Phelps Dodge Permit Instream Monitoring Upstream of Tuzigoot seeps VRVER085.61	1998 - 3 partial suites 1999 - 4 partial suites 2000 - 4 partial suites 2001 - 4 partial suites 2002 - 4 partial suites	Lead (total) µg/L	15 (FBC)	<5 - 40	2 of 19		
	Phelps Dodge Permit Instream Monitoring Below Tuzigoot seeps VRVER085.60	1998 - 3 partial suites 1999 - 4 partial suites 2000 - 4 partial suites 2001 - 4 partial suites 2002 - 4 partial suites	No exceedances					
	USGS Monitoring At Tuzigoot Bridge VRVER085.49 101546	1999 - 1 full suite	No exceedances					
	USGS Monitoring Above Dead Horse State Park VRVER084.38 101544	1999 - 1 full suite	No exceedances					
	ADEQ Ambient and Biocriteria At Dead Horse State Park VRVER84.38 100482	1999 - 1 full suite	No exceedances					
	USGS Monitoring Below Dead Horse State Park VRVER084.42 101545	1999 - 1 full suite	No exceedances					

TABLE 23. VERDE WATERSHED -- 2004 ASSESSMENT MONITORING DATA

STREAM NAME SEGMENT WATERBODY ID DESIGNATED USES	AGENCY AND PROGRAM SITE DESCRIPTION SITE CODE ADEQ DATABASE ID	YEAR SAMPLED NUMBER AND TYPE OF SAMPLES	EXCEEDANCES OF STANDARDS BY SITE					
			PARAMETER UNITS	STANDARD (DESIGNATED USE)	RANGE OF RESULTS	FREQUENCY EXCEEDED	DESIGNATED USE SUPPORT	COMMENTS
	Summary Row **A&Ww Inconclusive** **FC Attaining** **FBC Inconclusive** **AgI Attaining** **AgL Attaining**	**1998 - 2002** **69 samples** **34 sampling events**	***Escherichia coli* CFU/100 ml**	**235 (FBC)**	**0 - 240**	**1 of 25 events (in 2000)**	**Inconclusive**	**ADEQ, USGS, and Phelps Dodge collected a total of 69 samples at 11 sites in 1998-2002. Assessed as "attaining some uses" and placed on the Planning List due to mercury and *Escherichia coli* exceedances.**
			Lead (total) µg/L	**15 (FBC)**	**<5 - 40**	**2 of 63**	**Attaining**	
			Mercury (dissolved) µg/L	**0.01 (A&Ww chronic)**	**<0.1 - 0.1**	**1 of 1 event (insufficient events)**	**Inconclusive**	
			Turbidity (former standard) NTU	**50 (A&Ww)**	**0.76 - 61**	**1 of 25**	**Attaining**	
Verde River Oak Creek - Beaver Creek AZ15060202-015 A&Ww, FC, FBC, AgI, AgL	ADEQ TMDL Program Below Oak Creek VRVER078.8	1998 - 1 partial suite	No exceedances					
	ADEQ Biocriteria & TMDL At 1000 Trails VRVER078.76 100481	1999 - 1 partial suite	No exceedances					
	ADEQ Biocriteria & TMDL Program Across from Reservation VRVER075.14 100718	1999 - 1 partial suite	No exceedances					
	Summary Row **A&Ww Not attaining** **FC Inconclusive** **FBC Inconclusive** **AgI Inconclusive** **AgL Inconclusive**	**1998 - 1999** **3 samples** **2 sampling events**	**No exceedances**					**Insufficient monitoring data to assess (only 2 sampling events).** **A turbidity TMDL was approved by EPA in 2002. Reach will remain "not attaining" until turbidity or suspended sediment concentration (SSC) monitoring indicate designated uses are being attained.**
Verde River HUC border 15060203 - West Clear Creek AZ15060203-027 A&Ww, FC, FBC, AgI, AgL	ADEQ Biocriteria Program Above West Clear Creek VRVER066.74 100723	1999 - 1 partial suite	No exceedances					
	USGS Fixed Station #09505570 Above West Clear Creek VRVER066.64 100750	1998 - 5 full suites	*Escherichia coli* CFU/100 ml	235 (FBC)	60 - 240	1 of 5		
	Summary Row **A&Ww Inconclusive** **FC Attaining** **FBC Inconclusive** **AgI Attaining** **AgL Attaining**	**1998 - 1999** **6 sampling events**	***Escherichia coli* CFU/100 ml**	**235 (FBC)**	**60 - 240**	**1 of 5 events (in 1998, do not have 3 years sampling after)**	**Inconclusive**	**ADEQ and USGS collected 6 samples at 2 sites in 1998-1999. Assessed as "attaining some uses" and placed on the Planning List due to *Escherichia coli* exceedance and missing core parameters: dissolved metals (copper, cadmium, and zinc).**

TABLE 23. VERDE WATERSHED -- 2004 ASSESSMENT MONITORING DATA

STREAM NAME SEGMENT WATERBODY ID DESIGNATED USES	AGENCY AND PROGRAM SITE DESCRIPTION SITE CODE ADEQ DATABASE ID	YEAR SAMPLED NUMBER AND TYPE OF SAMPLES	EXCEEDANCES OF STANDARDS BY SITE					
			PARAMETER UNITS	STANDARD (DESIGNATED USE)	RANGE OF RESULTS	FREQUENCY EXCEEDED	DESIGNATED USE SUPPORT	COMMENTS
Verde River West Clear Creek - Fossil Creek AZ15060203-025 A&Ww, FC, FBC, AgI, AgL	USGS TMDL Monitoring At Beasley Flat VRVER064.80 100677	1999 - 1 partial suite 2002 - 1 partial suite	Turbidity (former standard) NTU	50 (A&Ww)	77	1 of 1		Also exceeded SSC standard (SSC =133, standard is 80), but lacked minimum of 4 samples to calculate geometric mean.
	ADEQ Fixed Station At Beasley Flat VRVER064.68 100477	1998 - 1 full suite 1999 - 4 full suites 2000 - 3 full suites 2001 - 4 full suites 2002 - 4 full suites	*Escherichia coli* CFU/100 ml	235 (FBC)	<2 - 1,125	1 of 15		
			Selenium µg/L	2 (A&Ww chronic)	<5 - 5.4	1 of 1		Lab reporting limits for 15 other samples were too high to use results for assessment.
			Turbidity (former standard) NTU	50 (A&Ww)	<5 - 998	5 of 16		Only 1 SSC sample collected.
	Summary Row **A&Ww Not attaining** **FC Attaining** **FBC Attaining** **AgI Attaining** **AgL Attaining**	**1999 - 2000** **18 samples**	***Escherichia coli* CFU/100 ml**	**235 (FBC)**	**<2 - 1,125**	**1 of 16 events (in 1999, 3 years sampling OK after)**	**Attaining**	**ADEQ and USGS collected 18 samples at 2 sites in 1999-2000.** **A turbidity TMDL for reaches immediately upstream of this reach was approved by EPA in 2002. Assessed as "not attaining" because the turbidity loading on this reach will be addressed by the turbidity TMDL for the Verde River. Although current turbidity data are inconclusive, the reach will remain "not attaining" until turbidity or suspended sediment concentration (new sediment standard) data indicate designated uses are being attained.** **Also placed on the Planning List due to selenium exceedance.**
			Selenium µg/L	**2 (A&Ww chronic)**	**<5 - 5.4**	**1 of 1 event (insufficient events)**	**Inconclusive**	
			Turbidity (former standard) NTU	**50 (A&Ww)**	**1 - 998**	**6 of 17**	**Inconclusive (Not attaining)**	
Verde River Tangle Creek - Ister Flat AZ15060203-018 A&Ww, FC, FBC, AgI, AgL	Univ. of Az. Reservoir Project Above Horseshoe Reservoir VRVER036.68	2002 - 2 partial suites	Turbidity (former standard) NTU	50 (A&Ww)	4.7 - >1000	1 of 2		
	USGS Fixed Station #09508500 Below Tangle Creek VRVER036.48 100740	1998 - 5 full suites 1999 - 6 full suites 2000 - 4 full suites 2001 - 4 full suites 2002 - 4 full suites	*Escherichia coli* CFU/100 mg/L	235 (FBC)	<1.0 - 770	1 of 22		
			Turbidity (former standard) NTU	50 (A&Ww)	0.2 - 170	4 of 22		
	SRP Ambient Monitoring Above Horseshoe Reservoir VRVER032.74	1998 - 15 partial suites 1999 - 14 partial suites 2000 - 15 partial suites 2001 - 11 partial suites 2002 - 12 partial suites	Copper (dissolved) µg/L	varies by hardness (A&Ww chronic)	<10 - 30	1 of 58		

TABLE 23. VERDE WATERSHED -- 2004 ASSESSMENT MONITORING DATA

STREAM NAME SEGMENT WATERBODY ID DESIGNATED USES	AGENCY AND PROGRAM SITE DESCRIPTION SITE CODE ADEQ DATABASE ID	YEAR SAMPLED NUMBER AND TYPE OF SAMPLES	EXCEEDANCES OF STANDARDS BY SITE					
			PARAMETER UNITS	STANDARD (DESIGNATED USE)	RANGE OF RESULTS	FREQUENCY EXCEEDED	DESIGNATED USE SUPPORT	COMMENTS
	Summary Row **A&Ww Inconclusive** **FC Attaining** **FBC Inconclusive** **AgI Attaining** **AgL Attaining**	**1998 - 2002** **92 samples** **85 sampling events**	**Copper (dissolved) µg/L**	**varies by hardness (A&Ww chronic)**	**<10 - 30**	**1 of 58 events (2% exceed)**	**Attaining**	**University of Arizona, USGS, and SRP collected 92 samples at 3 sites in 1998-2002. Reach is assessed as "attaining some uses" and placed on the Planning List due to:** **1. *Escherichia coli* exceedances.** **2. Former turbidity standard exceedances. Monitoring will be scheduled to determine whether bottom deposit violations are occurring.**
			***Escherichia coli* CFU/100 mg/L**	**235 (FBC)**	**<1.0 - 770**	**1 of 24 events (in 2000)**	**Inconclusive**	
			Turbidity (former standard) NTU	**50 (A&Ww)**	**0.3 - 170**	**5 of 24**	**Inconclusive**	
Verde River Horseshoe Dam - Alder Creek AZ15060203-008 A&Ww, FC, FBC, AgI, AgL	AGFD Ambient Monitoring Below Horseshoe Reservoir VRVER030.17	1999 - 1 partial suite	No exceedances					
	Univ. of Az. Reservoir Project Below Horseshoe Reservoir VRVER028.85	2002 - 2 partial suites	No exceedances					
	AGFD Ambient Monitoring Below Mesquite Rec. Area VRVER028.70	1999 - 1 partial suite	No exceedances					
	ADEQ Ambient Monitoring Below Horseshoe Reservoir VEVER027.54 100831	1999 - 1 full suite	No exceedances					
	Summary Row **A&Ww Inconclusive** **FC Inconclusive** **FBC Inconclusive** **AgI Inconclusive** **AgL Attaining**	**1999 - 2002** **5 sampling events**	**No exceedances**					**ADEQ, AGFD, and University of Arizona collected 5 samples at 4 sites in 1999 - 2002. Assessed as "attaining some uses" and placed on the Planning List due to missing core parameters: *Escherichia coli*, total boron, dissolved metals (copper, cadmium, and zinc), and total mercury.**
Verde River Bartlett Dam - Camp Creek AZ15060203-004 A&Ww, FC, FBC, DWS, AgI, AgL	Univ. of Az. Reservoir Project Below Bartlett Lake VRVER018.51	2002 - 2 partial suites	No exceedances					
	USGS Fixed Station #09510000 Below Bartlett Dam VRVER018.13 100741	1999 - 4 full suites 2000 - 6 full suites 2001 - 5 full suites 2002 - 3 full suites	No exceedances					
	SRP Routine Monitoring Below Bartlett Dam VRVER017.55	1998 - 10 partial suites 1999 - 13 partial suites 2000 - 13 partial suites 2001 - 11 partial suites 2002 - 12 partial suites	Copper (dissolved) µg/L	varies by hardness (A&Ww chronic)	<10 - 55	4 of 57		
				varies by hardness (A&Ww acute)	<10 - 55	1 of 57		
			Selenium (dissolved) µg/L	2 (A&Ww total, chronic)	<5 - 13	4 of 4		Lab reporting limits for 56 other selenium samples were too high to assess the chronic standard.

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STREAM NAME SEGMENT WATERBODY ID DESIGNATED USES	AGENCY AND PROGRAM SITE DESCRIPTION SITE CODE ADEQ DATABASE ID	YEAR SAMPLED NUMBER AND TYPE OF SAMPLES	EXCEEDANCES OF STANDARDS BY SITE					
			PARAMETER UNITS	STANDARD (DESIGNATED USE)	RANGE OF RESULTS	FREQUENCY EXCEEDED	DESIGNATED USE SUPPORT	COMMENTS
	Summary Row **A&Ww Impaired** **FC Attaining** **FBC Attaining** **DWS Attaining** **AgI Attaining** **AgL Attaining**	**1998 - 2002** **79 samples**	**Copper (dissolved) µg/L**	**varies by hardness (A&Ww chronic)**	**<10 - 55**	**4 of 80 events**	**Impaired**	**University of Arizona, USGS, and SRP collected 79 samples at 3 sites in 1998 - 2002. Assessed as "impaired" due to copper and selenium exceedances.**
				varies by hardness (A&Ww acute)	< 10 - 55	1 of 80 events (in 1999, 3 years OK after)	Attaining	
			Selenium (dissolved) µg/L	**2 (A&Ww total, chronic)**	**<5 - 13**	**4 of 23 events**	**Impaired**	
Verde River Camp Creek - Sycamore Creek 15060203-003 A&Ww, FBC, FC, DWS, AgI, AgL	USGS Fort McDowell Study Fort McDowell north boundary VRVER011.34 101522	1998 - 2 partial suites 1999 - 4 partial suites	No exceedances					
	Summary Row **A&Ww Inconclusive** **FC Inconclusive** **FBC Attaining** **DWS Inconclusive** **AgI Inconclusive** **AgL Inconclusive**	**1998 - 1999** **6 sampling events**	**No exceedances**					**USGS collected 6 samples in 1998-1999. Assessed as "attaining some uses" and placed on the Planning List due to missing core parameters: dissolved cadmium and total metals (mercury, arsenic, chromium, lead, manganese, and copper).**
Verde River Sycamore Creek - Salt River 15060203-001 A&Ww, FBC, FC, DWS, AgI, AgL	Univ. of AZ - Reservoir Project for ADEQ Above Salt River confluence VRVER003.18	2002 - 1 partial suite	No exceedances					
	AGFD Ambient Monitoring Above Salt River confluence VRVER000.18	1999 - 2 partial suites	No exceedances					
	Summary Row **A&Ww Inconclusive** **FBC Inconclusive** **FC Inconclusive** **DWS Inconclusive** **AgI Inconclusive** **AgL Inconclusive**	**1999 - 2002** **3 sampling events**	**No exceedances**					**AGFD and University of Arizona collected 3 samples in 1999-2002. Assessed as "inconclusive" and placed on the Planning List due to insufficient monitoring events for all core parameters (only 1 or 2 samples for each).**
West Clear Creek Meadow Canyon - Verde River AZ15060203-026B A&Ww, FC, FBC, AgI, AgL	ADEQ Biocriteria Program Above Bull Pen Ranch VRWCL006.09 100204	1998 - 1 partial suite 1999 - 1 partial suite	No exceedances					
	USGS Fixed Station #09505800 Near Camp Verde VRWCL005.79 100749	1998 - 12 partial suites 1999 - 12 partial suites 2000 - 3 partial suites 2001 - 9 partial suites 2002 - 6 partial suites	No exceedances					
	ADEQ Biocriteria Program At campground VRWCL002.91 100689	1999 - 1 partial suite	No exceedances					

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			PARAMETER UNITS	STANDARD (DESIGNATED USE)	RANGE OF RESULTS	FREQUENCY EXCEEDED	DESIGNATED USE SUPPORT	COMMENTS
	Summary Row **A&Ww Inconclusive** **FC Inconclusive** **FBC Inconclusive** **AgI Inconclusive** **AgL Inconclusive**	**1998-2002** **45 samples**	**No exceedances**					**ADEQ and USGS collected 45 samples at 3 site in 1998-2002. Assessed as "inconclusive" and placed on the Planning List due to missing core parameters: *Escherichia coli,* dissolved zinc, total boron, and total metals (mercury, manganese, copper, and lead).**
Wet Beaver Creek Long Canyon - Rarick Canyon AZ15060202-004 A&Wc, FC, FBC, AgI, AgL	ADEQ Biocriteria &TMDL Above USGS gage at Rimrock VRWBV006.79 100765	1998 - 1 partial suite 1999 - 4 partial suites	Dissolved oxygen mg/L	> 7.0 (90% saturation) (A&Wc)	6.6 - 9.5 (75 - 100%)	1 of 4		Low dissolved oxygen due to naturally occurring ground water upwelling, and not anthropogenic causes. Not included in final assessment.
	ADEQ Biocriteria Program At campground VRWBV005.06 100684	1999 - 1 partial suite	No exceedances					
	ADEQ TMDL Program At camp ground VRBEV004.95	1999 - 5 partial suites	Dissolved oxygen mg/L	> 7.0 (90% saturation) (A&Wc)	6.7 - 9.4 (87 - 93%)	1 of 3		
	ADEQ TMDL Program At Montezuma Well VRWBV003.18	1999 - 4 partial suites	No exceedances					
	Summary Row **A&Wc Inconclusive** **FC Inconclusive** **FBC Inconclusive** **AgI Inconclusive** **AgL Inconclusive**	**1998 - 2002** **15 samples** **7 sampling events**	**No exceedances**					**ADEQ collected 15 samples at 4 sites in 1998-2002. Assessed as "inconclusive" and placed on the Planning List due to missing core parameters: *Escherichia coli,* total boron, dissolved metals (copper and zinc), and total metals (mercury, manganese, copper, and lead).**
Wet Beaver Creek Rarick Canyon - Dry Beaver Creek AZ15060202-003 A&Wc, FC, FBC, AgI, AgL	USGS Ambient Monitoring VRWBV003.16 101543	2002 - 1 partial suite	No exceedances					
	Summary Row **A&Wc Inconclusive** **FC Inconclusive** **FBC Inconclusive** **AgI Inconclusive** **AgL Inconclusive**	**2002** **1 sampling event**	**No exceedances**					**Insufficient monitoring data to assess.**

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STREAM NAME SEGMENT WATERBODY ID DESIGNATED USES	AGENCY AND PROGRAM SITE DESCRIPTION SITE CODE ADEQ DATABASE ID	YEAR SAMPLED NUMBER AND TYPE OF SAMPLES	EXCEEDANCES OF STANDARDS BY SITE					
			PARAMETER UNITS	STANDARD (DESIGNATED USE)	RANGE OF RESULTS	FREQUENCY EXCEEDED	DESIGNATED USE SUPPORT	COMMENTS
LAKE MONITORING DATA								
Bartlett Lake AZL15060203-0110 A&Ww, FC, FBC, DWS, AgI, AgL	ADEQ Lakes Program VRBAR-A (deepest) 100009	1998 - 3 partial suites 1999 - 3 partial suites 2000 - 2 partial suites 2001 - 1 full + 1 partial suites 2002 - 1 full suite	No exceedances					All 4 *Escherichia coli* samples were collected by ADEQ on the same date (one event).
	ADEQ Lakes Program VRBAR-B (mid lake) 100010	1998 - 3 full suites 1999 - 3 full suites 2000 - 1 partial suites 2001 - 2 full suites 2002 - 1 full suite	No exceedances					
	ADEQ Lakes Program VRBAR-C 100011	1998 - 3 full suites 1999 - 3 full suites 2000 - 1 partial suites 2001 - 2 full suites 2002 - 1 full suite	Turbidity (former standard) NTU	25 (A&Ww)	3 - 28	1 of 7		The turbidity exceedance at site C was due to an upstream dam release and natural mixing flows in this area of the lake; therefore, the turbidity was not included in the final assessment.
	ADEQ Lakes Program VRBAR-NTU1 thru NTU5 100980	1999 - Turbidity + field at 5 sites 2000 - Turbidity + field at 5 sites	No exceedances					
	ADEQ Lakes Program VRBAR - MAR1 (marina) 100986	2001 - 1 field, MTBE 2002 - 1 MTBE	No exceedances					
	ADEQ Lakes Program VRBAR - SW (swim area) 101321	2002 - 1 *Escherichia coli*	No exceedances					
	AGFD Ambient Monitoring VRBAR - DAM SITE	2000 - 1 partial suite	No exceedances					
	AGFD Ambient Monitoring VRBAR - MID LAKE	2000 - 1 partial suite	No exceedances					
	AGFD Ambient Monitoring VRBAR - BARTLETT FLATS	2000 - 1 partial suite	No exceedances					
	Univ. of Az. Reservoir Project Bartlett Lake VRBAR - A	1999 - 4 partial suites 2000 - 8 partial suites 2002 - 2 full suites	pH SU	6.5 - 9.0 (A&Ww, FBC, AgI, AgL)	7.7 - 9.3	1 of 14		
	Summary Row **A&Ww Inconclusive** **FC Attaining** **FBC Inconclusive** **DWS Attaining** **AgI Attaining** **AgL Attaining**	**1998 - 2002** **61 samples** **31 sampling events**	**pH (SU)**	**6.5 - 9.0 (A&Ww, FBC, AgI, AgL)**	**7.7 - 9.3**	**1 of 60**	**Attaining**	**ADEQ, AGFD, and University of Arizona collected 61 samples at 14 sites in 1998-2002. Assessed as "attaining some uses" and placed on the Planning List due to missing core parameters: *Escherichia coli* and dissolved metals (copper, cadmium, and zinc).**
Fountain Lake AZL15060203-0003 A&Ww, FBC, FC (tributary rule)	USGS Special Investigation In Fountain Hills, Arizona VRFHL 101597	1998 - 1 partial suite	No exceedances					
	Summary Row **A&Ww Inconclusive** **FBC Inconclusive** **FC Inconclusive**	**1998** **1 sampling event**	**No exceedances**					**Insufficient monitoring data to assess.**

TABLE 23. VERDE WATERSHED -- 2004 ASSESSMENT MONITORING DATA

STREAM NAME SEGMENT WATERBODY ID DESIGNATED USES	AGENCY AND PROGRAM SITE DESCRIPTION SITE CODE ADEQ DATABASE ID	YEAR SAMPLED NUMBER AND TYPE OF SAMPLES	EXCEEDANCES OF STANDARDS BY SITE					
			PARAMETER UNITS	STANDARD (DESIGNATED USE)	RANGE OF RESULTS	FREQUENCY EXCEEDED	DESIGNATED USE SUPPORT	COMMENTS
Granite Basin Lake AZL15060202-0580 A&Ww, FC, FBC, AgI, AgL	ADEQ Lakes Program **VRGBL - A (deepest), VRGBL-B (mid-lake), VRGBL-BR (boat ramp) 100024, 100025, 101398 (sites combined for assessment because they were not spatially independent)**	1999 - 3 full + 1 partial suite 2002 - 3 partial suites	Ammonia mg/L	varies by temperature and pH (A&Ww chronic)	0.03 - 7.65	1 of 6		Lab reporting limits for dissolved metals were too high to use results for assessment. **Dissolved oxygen violations were determined to be natural due to lake turnover. Not included in final assessment.**
			Dissolved oxygen mg/L	> 6.0 (90% saturation) (A&Ww)	3.6 - 11.2 (39%-142%)	2 of 6		
			pH (low) SU	6.5 - 9.0 (A&Ww, FBC, AgI, AgL)	7.0 - 9.7	2 of 6		
	Summary Row **A&Ww Inconclusive** **FC Attaining** **FBC Inconclusive** **AgI Inconclusive** **AgL Inconclusive**	**1998-2002** **12 samples** **8 sampling events**	**Ammonia mg/L**	**varies by hardness (A&Ww chronic)**	**0.03 - 7.65**	**1 of 6 events**	**Inconclusive**	**ADEQ collected 12 samples at 3 sites in 1998-2002. Assessed as "attaining some uses" and placed on the Planning List due to high pH, ammonia exceedance, and missing core parameters: *Escherichia coli* and dissolved metals (copper, cadmium, and zinc).**
			pH (high) SU	**6.5 - 9.0 (A&Ww, FBC, AgI, AgL)**	**7.0 - 9.5**	**2 of 6**	**Inconclusive**	
Horseshoe Reservoir AZL15060203-0620 A&Ww, FC, FBC, AgI, AgL	Univ. of Az. Reservoir Project VRHSR - A (deepest)	1999 - 4 partial suites 2000 - 4 partial suites	Turbidity (former standard) NTU	25 (A&Ww)	2 - 90	3 of 8		
	Univ. of Az. Reservoir Project VRHSR - B (mid lake)	1999 - 4 partial suites 2000 - 3 partial suites	pH SU	6.5 - 9.0 (A&Ww, FBC, AgI, AgL)	8.2 - 9.3	1 of 7		
			Turbidity (former standard) NTU	25 (A&Ww)	0.8 - 32	1 of 7		
	Univ. of Az. Reservoir Project VRHSR - C	1999 - 2 partial suites 2000 - 1 partial suite	No exceedances					
	AGFD Ambient Monitoring VRHSR - East Spill Tower	1999 - 1 partial suite	No exceedances					
	Summary Row **A&Ww Inconclusive** **FC Inconclusive** **FBC Inconclusive** **AgI Inconclusive** **AgL Inconclusive**	**1999 - 2000** **19 samples** **9 sampling events**	**pH SU**	**6.5 - 9.0 (A&Ww, FBC, AgI, AgL)**	**8.2 - 9.3**	**1 of 19**	**Attaining**	**University of Arizona and AGFD collected 19 samples at 4 sites in 1999 - 2000. Assessed as "inconclusive" and placed on the Planning List due to missing core parameters and exceedances of the former turbidity standard. Further investigation into the causes and sources of turbidity will be scheduled during the next monitoring cycle for this watershed. Missing core parameters: *Escherichia coli,* total boron, dissolved metals (copper, cadmium, and zinc), and total metals (mercury, manganese, copper, and lead).**
			Turbidity (former standard) NTU	**25 (A&Ww)**	**0.8 - 90**	**4 of 18**	**Inconclusive (see comment)**	
J D Dam Lake AZL15060202-0700 A&Wc, FBC, FC, AgI, AgL	ADEQ Lakes Program VRJDD - A (deepest) 101286	2001 - 4 partial suites	pH SU	6.5 - 9.0 (A&Ww, FBC, Agi, AgL)	6.2 - 8.9	1 of 4		Used worst case pH of 1 of 10 samples taken. Algal bloom noted at the time.
	ADEQ Lakes Program VRJDD - BR (boat ramp) 101318	2002 - 1 *Escherichia coli*	No exceedances					
	AGFD Ambient Monitoring VRJDD - M (mid lake)	2001 - 1 partial suite	No exceedances					
	Summary Row **A&Wc Inconclusive** **FC Attaining** **FBC Inconclusive** **AgI Attaining** **AgL Attaining**	**2001 - 2002** **6 sampling events**	**pH SU**	**6.5 - 9.0 (A&Ww, FBC)**	**6.2 - 8.9**	**1 of 5**	**Inconclusive**	**ADEQ and AGFD collected 6 samples in 2001 - 2002. Assessed as "attaining some uses" and placed on the Planning List due to low pH and missing core parameters: *Escherichia coli* and dissolved metals (copper and cadmium).**

TABLE 23. VERDE WATERSHED -- 2004 ASSESSMENT MONITORING DATA

STREAM NAME SEGMENT WATERBODY ID DESIGNATED USES	AGENCY AND PROGRAM SITE DESCRIPTION SITE CODE ADEQ DATABASE ID	YEAR SAMPLED NUMBER AND TYPE OF SAMPLES	EXCEEDANCES OF STANDARDS BY SITE					
			PARAMETER UNITS	STANDARD (DESIGNATED USE)	RANGE OF RESULTS	FREQUENCY EXCEEDED	DESIGNATED USE SUPPORT	COMMENTS
Pecks Lake AZL15060202-1060 A&Wc, FC, FBC, AgI, AgL	ADEQ Lakes Program VRPEC-A 100063	1999 - 4 partial suites 2000 - 1 partial suite 2002 - 1 partial suite	Dissolved oxygen mg/L	> 7.0 (90% saturation) (A&Wc)	5.0 - 11.7	1 of 5		
	ADEQ Lakes Program VRPEC-AA 100511	1999 - 1 partial suite 2000 - 1 partial suite	Dissolved oxygen mg/L	> 7.0 (90% saturation) (A&Wc)	2.0 - 8.3 (18 - 85%)	1 of 2		
	ADEQ Lakes Program VRPEC-F 1005113	1999 - 2 partial suites 2002 - 1 partial suite	No exceedances					
	Summary Row **A&Wc Not attaining** **FC Attaining** **FBC Inconclusive** **AgI Attaining** **AgL Attaining**	**1999 - 2002** **11 samples** **6 sampling events**	**Dissolved oxygen mg/L**	**> 7.0 (90% saturation) (A&Wc)**	**2 - 11.7 (18 - 85%)**	**2 of 7**	**Inconclusive (Not attaining)**	**ADEQ collected 11 samples at 3 sites in 1999-2002.** **A nutrient TMDL to address dissolved oxygen and pH problems was approved by EPA in 2000. Although current dissolved oxygen data are inconclusive, lake is assessed as "not attaining" until dissolved oxygen data indicate designated uses are being attained.** **Placed on the Planning List for TMDL follow-up monitoring and missing core parameters: *Escherichia coli*, turbidity, and dissolved metals (cadmium, copper, and zinc).**
Perkins Tank AZL15060202-1080 A&Wc, FC, FBC, AgL	ADEQ Lakes Program VRPER-A (deepest) 101296	2001 - 1 partial suites	Dissolved oxygen mg/L	> 7.0 (90% saturation) (A&Wc)	6.2 - 6.6 (68 - 74%)	1 of 1		
			Turbidity (former standard) NTU	10 (A&Wc)	3 - 13	1 of 1		
	AGFD Lakes Program VRPER-MID (mid lake)	2001 - 1 partial suite	Dissolved oxygen mg/L	> 7.0 (90% saturation) (A&Wc)	4.6 (60%)	1 of 1		
	Summary Row **A&Wc Inconclusive** **FC Inconclusive** **FBC Inconclusive** **AgL Inconclusive**	**2001** **2 sampling events**	**Dissolved oxygen mg/L**	**> 7.0 (90% saturation) (A&Wc)**	**4.6 - 6.6 (65 - 106%)**	**2 of 2**	**Inconclusive**	**Insufficient monitoring data to assess.** **Placed on the Planning List due to low dissolved oxygen and exceedance of the former turbidity standard. Further investigation into the causes and sources of turbidity will be scheduled during the next monitoring cycle for this watershed.**
			Turbidity (former standard) NTU	**10 (A&Wc)**	**3 - 13**	**1 of 1**	**Inconclusive (see comment)**	
Scholze Lake AZL15060202-1350 A&Ww, FC, FBC, AgL	ADEQ Lakes Program VRSch-A (deepest) VRSCH 101295	2001 - 3 partial suites 2002 - 1 full suite	Dissolved oxygen mg/L	> 6.0 (90% saturation) (A&Ww)	4.8 - 7.7 (44 - 81%)	1 of 3		
			Lead (dissolved) µg/L	varies by hardness (A&Ww chronic)	4	1 of 1		
			Total nitrogen mg/L	3.0 (A&Ww)	2.47 - 3.36	2 of 4		
			Turbidity (former standard) NTU	25 (A&Ww)	8 - 78	1 of 3		

TABLE 23. VERDE WATERSHED -- 2004 ASSESSMENT MONITORING DATA

STREAM NAME SEGMENT WATERBODY ID DESIGNATED USES	AGENCY AND PROGRAM SITE DESCRIPTION SITE CODE ADEQ DATABASE ID	YEAR SAMPLED NUMBER AND TYPE OF SAMPLES	EXCEEDANCES OF STANDARDS BY SITE					
			PARAMETER UNITS	STANDARD (DESIGNATED USE)	RANGE OF RESULTS	FREQUENCY EXCEEDED	DESIGNATED USE SUPPORT	COMMENTS
	Summary Row **A&Ww Inconclusive** **FC Inconclusive** **FBC Inconclusive** **AgL Inconclusive**	**2001 - 2002** **4 sampling events**	**Dissolved oxygen mg/L**	**> 6.0 (90% saturation) (A&Ww)**	**4.8 - 7.7 (44 - 81%)**	**1 of 3**	**Inconclusive**	**ADEQ collected 4 samples in 2001-2002. Assessed as "inconclusive" and placed on the Planning List due to low dissolved oxygen and exceedances of lead, nitrogen, and the former turbidity standard. Further investigation into the causes and sources of turbidity will be scheduled during the next monitoring cycle for this watershed.** **Also placed on the Planning List due to missing core parameters: *Escherichia coli*, dissolved metals (copper and cadmium), and total metals (mercury, copper, and lead).**
			Lead (dissolved) µg/L	**varies by hardness (A&Ww chronic)**	**4**	**1 of 1 event (insufficient events)**	**Inconclusive**	
			Total nitrogen mg/L	**3.0 (A&Ww)**	**2.47 - 3.36**	**2 of 4**	**Inconclusive**	
			Turbidity (former standard) NTU	**25 (A&Ww)**	**8 - 78**	**1 of 3**	**Inconclusive (see comment)**	
Stoneman Lake AZL15060202-1490 A&Wc, FC, FBC, AgI, AgL	ADEQ Lakes Program VRSTN-A (deepest) 100086	1999 - 5 partial suites 2001 - 1 partial suite	pH SU	6.5-9.0 (A&Wc, FBC, AgI, AgL)	8.7 - 9.9	2 of 4		
	ADEQ Lakes Program VRSTN-B (mid lake) 100698	1999 - 4 partial suites 2001 - 1 partial suite	Arsenic (total) µg/L	50 (FBC)	28 - 107	1 of 4		
			Dissolved oxygen mg/L	> 7.0 (90% saturation) (A&Wc)	6.7- 14.5 (82 - 83%)	1 of 3		
			pH SU	6.5 - 9.0 (A&Wc, FBC, AgI, AgL)	8.8 - 9.6	2 of 5		
	ADEQ Lakes Program Central portion of backwaters VRSTN-MIDBW	1999 - 1 partial suite	No exceedances					
	ADEQ Lakes Program East portion, next to dike VRSTN - 1	1999 - 1 partial suite	pH SU	6.5 - 9.0 (A&Wc, FBC, AgI, AgL)	9.6	1 of 1		
	ADEQ Lakes Program North east bank of the dike VRSTN - 1E	1999 - 1 partial suite	Dissolved oxygen mg/L	> 7.0 (90% saturation) (A&Wc)	6.1 (65%)	1 of 1		Dissolved oxygen samples taken in backwater and back of dike are not representative of lake conditions. Low dissolved oxygen is due to natural ground water recharge. Not included in final assessment.
	ADEQ Lakes Program Northeast portion of backwater VRSTN - 1EE	1999 - 1 partial suite	Dissolved oxygen mg/L	> 7.0 (90% saturation) (A&Wc)	4.2 (47%)	1 of 1		
	ADEQ Lakes Program Central portion of north backwater VRSTN - 1S	1999 - 1 partial suite	pH SU	6.5 - 9.0 (A&Wc, FBC, AgI, AgL)	9.5	1 of 1		
	AGFD Lakes Monitoring VRSTN - MID (mid lake)	2001 - 1 partial suite	Arsenic µg/L	50 (FBC)	70.6	1 of 1		

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STREAM NAME SEGMENT WATERBODY ID DESIGNATED USES	AGENCY AND PROGRAM SITE DESCRIPTION SITE CODE ADEQ DATABASE ID	YEAR SAMPLED NUMBER AND TYPE OF SAMPLES	EXCEEDANCES OF STANDARDS BY SITE PARAMETER UNITS	STANDARD (DESIGNATED USE)	RANGE OF RESULTS	FREQUENCY EXCEEDED	DESIGNATED USE SUPPORT	COMMENTS
	Summary Row **A&Wc Not attaining** **FC Attaining** **FBC Not attaining** **AgI Not attaining** **AgL Not attaining**	**1999 - 2001** **17 samples** **7 sampling events**	**Arsenic µg/L**	**50 FBC**	**28 - 107**	**2 of 8**	**Inconclusive**	**ADEQ and AGFD collected 17 samples at 8 sites in 1998-2002.** **A nutrient TMDL to address low dissolved oxygen and high pH was approved by EPA in 2000. Assessed as "not attaining" due to pH exceedances. Although current pH data are inconclusive, this lake will remain "not attaining" until pH data indicate designated uses are being attained.** **Placed on the Planning List for arsenic exceedances, missing core parameter (*Escherichia coli*), and TMDL follow-up monitoring.** **Note that ADEQ is investigating establishing site-specific standards on this lake.** **Lake was completely dry in 2002.**
			Dissolved oxygen mg/L	**> 7.0 (90% saturation) (A&Wc)**	**4.2 - 14.5 (47 - 106%)**	**1 of 12**	**Attaining**	
			pH SU	**6.5 - 9.0 (A&Wc, FBC, AgI, AgL)**	**8.1 - 9.9**	**6 of 10**	**Inconclusive (Not attaining)**	
Watson Lake AZL15060202-1590 A&Ww, FC, FBC, AgI, AgL	ADEQ Lakes Program VRWAT-A (deepest) 101353	2002 - 1 full + 1 partial suite	Dissolved oxygen mg/L	> 6.0 (90% saturation) (A&Ww)	5.6 - 8.5 (64 - 85%)	1 of 2		
			Total nitrogen mg/L	3.0 (A&Ww)	1.24 - 4.85	1 of 2		
	ADEQ Lakes Program VRWAT - BR (boat ramp) 101397	2002 - 1 *Escherichia coli*	No exceedances					
	AGFD Ambient Monitoring VRWAT - BR (boat ramp)	2001 - 1 pH	No exceedances					
	AGFD Fish kill Investigation VRWAT-DAM (dam site)	2000 - 1 partial suite	pH SU	6.5 - 9.0 (A&Ww, FBC, AgI, AgL)	9.8	1 of 1		Field notes indicate that the lake was full of algae. Golden shiner fish kill in 2000.
			Total nitrogen mg/L	3.0 (A&Ww)	4	1 of 1		
	AGFD Fish kill investigation VRWAT - SO (south end)	2000 - 1 partial suite	pH SU	6.5 - 9.0 (A&Ww, FBC, AgI, AgL)	9.5	1 of 1		
	Summary Row **A&Ww Inconclusive** **FC Inconclusive** **FBC Inconclusive** **AgI Inconclusive** **AgL Inconclusive**	**2000 - 2002** **6 samples** **4 sampling events**	**Dissolved oxygen mg/L**	**> 6.0 90% saturation (A&Ww)**	**5.6 - 9.1 (64 - 85%)**	**1 of 5**	**Inconclusive**	**ADEQ and AGFD collected 6 samples at 5 sites in 2000 - 2002. Assessed as "inconclusive" and placed on the Planning List due to dissolved oxygen, nitrogen and pH exceedances, missing core parameters, and a fish kill in 2000.** **Missing core parameters: *Escherichia coli*, turbidity, total boron, dissolved metals (copper, cadmium, and zinc), and total metals (mercury, copper, and lead).**
			pH SU	**6.5 - 9.0 (A&Ww, FBC, AgI, AgL)**	**7.5 - 9.8**	**2 of 5**	**Inconclusive**	
			Total nitrogen mg/L	**3.0 (A&Ww)**	**0.89 - 4.85**	**2 of 5**	**inconclusive**	

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STREAM NAME SEGMENT WATERBODY ID DESIGNATED USES	AGENCY AND PROGRAM SITE DESCRIPTION SITE CODE ADEQ DATABASE ID	YEAR SAMPLED NUMBER AND TYPE OF SAMPLES	EXCEEDANCES OF STANDARDS BY SITE					
			PARAMETER UNITS	STANDARD (DESIGNATED USE)	RANGE OF RESULTS	FREQUENCY EXCEEDED	DESIGNATED USE SUPPORT	COMMENTS
Whitehorse Lake AZL15060202-1630 A&Wc, FC, FBC, DWS, AgI, AgL	ADEQ Lakes Program VRWHH - A 100090	1999 - 3 full suites 2000 - 3 full suites 2001 - 6 full suites 2002 - 1 full suite	Ammonia mg/L	varies by hardness (A&Wc chronic)	0.11 - 1.24	1 of 11		Fish kill reported in 1999. Lab reporting limits for some dissolved metals samples were too high to assess standards.
			Dissolved oxygen mg/L	> 7.0 90% saturation (A&Wc)	0.6 - 10.4 (7-145%)	3 of 11		
			Nickel (total)	140 (DWS)	<10 - 210	1 of 11		
			pH SU	6.5 - 9.0 (A&Wc, FBC, AgL) 4.5 - 9.0 (AgI) 5.0 - 9.0 (DWS)	6.2- 9.6	1 of 13 too high 1 of 13 too low		
			Turbidity (former standard) NTU	10 (A&Wc)	21 - 46	9 of 9		
	ADEQ Lakes Program VRWHH-B 100724	1999 - 3 full suites	Ammonia mg/L	varies by hardness (A&Wc chronic)	0.08 - 0.42	1 of 2		
			Dissolved oxygen mg/L	> 7.0 90% saturation (A&Wc)	5.8 - 10.0 (73-148%)	1 of 3		
			pH SU	6.5 - 9.0 (A&Wc, FBC, AgL) 4.5 - 9.0 (AgI) 5.0 - 9.0 (DWS)	7.1 - 9.6	1 of 3		
	ADEQ Lakes Program VRWHH - BR (boat ramp) 101317	2002 - 1 *Escherichia coli*	No exceedances					
	Summary Row **A&Wc Impaired*** **FC Inconclusive** **FBC Inconclusive** **DWS Attaining** **AgI Attaining** **AgL Attaining**	**1999-2002** **17 samples** **13 sampling events**	**Ammonia mg/L**	**varies by temperature and pH (A&Wc chronic)**	**0.08 - 1.24**	**2 of 13 events (15% events)**	**Inconclusive**	**ADEQ collected 17 samples at 3 sites from 1999-2002.** ***EPA placed this lake on the 2002 303(d) List for dissolved oxygen based on 5 exceedances in 11 samples. Although Arizona's Impaired Water Identification Rule requires a minimum of 20 samples to base a listing decision for dissolved oxygen, the lake cannot be delisted until a TMDL is complete or dissolved oxygen data indicate designated uses are being attained. Therefore, the lake is assessed as "impaired."** **Placed on the Planning List due to:** **1. Ammonia exceedances.** **2. A fish kill in 1999 that may be evidence of a narrative standard violation.** **3. Missing core parameters: *Escherichia coli* and dissolved metals (copper, cadmium, and zinc).** **4. Exceedances of the former turbidity standard. Further investigation into the causes and sources of turbidity will be scheduled during the next monitoring cycle for this watershed.**
			Dissolved oxygen mg/L	**> 7.0 (90% saturation) (A&Wc)**	**5.75-9.98 (73-148%)**	**4 of 14**	**Inconclusive (Impaired)**	
			Nickel (total)	**140 (DWS)**	**<10 - 210**	**1 of 11**	**Attaining**	
			pH SU	**6.5 - 9.0 (A&Wc, FBC, AgL) 4.5 - 9.0 (AgI) 5.0 - 9.0 (DWS)**	**6.2 - 9.6**	**2 of 16 high 1 of 16 low**	**Attaining**	
			Turbidity (former standard) NTU	**10 (A&Wc)**	**21 - 46**	**9 of 9**	**Inconclusive**	

TABLE 24. VERDE WATERSHED — ASSESSMENT, PLANNING LIST, AND 303(d) STATUS TABLE

SURFACE WATER DESCRIPTION	2004 ASSESSMENT 5-CATEGORIES LAKE TROPHIC STATUS	2004 PLANNING LIST	STATUS OF 2002 303(d) LIST RECOMMENDATIONS FOR 2004 LIST	OTHER INFORMATION
VERDE WATERSHED -- STREAM ASSESSMENTS				
Apache Creek headwaters - Walnut Creek 8 miles AZ15060201-019	A&Ww Inconclusive FC Inconclusive FBC Inconclusive AgL Inconclusive Category 3 -- Inconclusive	On the Planning List (no current monitoring data). Added in 2002 due to missing core parameters.		
Beaver Creek Dry Beaver Creek - Verde River 9 miles AZ15060202-002	**A&Ww Inconclusive** FC Inconclusive FBC Inconclusive AgL Inconclusive **Category 3 -- Inconclusive**	On the Planning List due to: 1. Former turbidity standard exceedances (5 of 26 samples). Monitoring will be scheduled to determine whether suspended sediment or bottom deposit violations are occurring. 2. Missing core parameters: *Escherichia coli*, dissolved metals (cadmium, copper, and zinc), and total metals (mercury, copper, and lead).	Delist turbidity. Standard repealed in 2002. The Aquatic and Wildlife use is assessed as "inconclusive" and placed on the Planning List due to exceedances of the former turbidity standard (5 of 26 samples exceed).	EPA may use exceedances of the former turbidity standard as an indicator of narrative standards violations and place this reach on the 2004 303(d) List due to turbidity.
Bitter Creek Jerome WWTP - 2.5 miles below 3 miles AZ15060202-066B	A&Wedw Inconclusive PBC Inconclusive AgL Inconclusive Category 3 -- Inconclusive	On the Planning List (no current monitoring data). Added in 2002 due to insufficient monitoring data.		
Bitter Creek, unnamed tributary of headwaters - Bitter Creek 7 miles AZ15060202-868	A&Ww Inconclusive FBC Inconclusive FC Inconclusive Category 3 -- Inconclusive	On the Planning List (no current monitoring data). Added in 2002 due to past exceedances of cadmium, copper, pH, and zinc standards.		
Camp Creek headwaters - Verde River 19 miles AZ15060203-031	A&Ww Inconclusive FBC Inconclusive FC Inconclusive AgL Inconclusive Category 3 -- Inconclusive	On the Planning List due to insufficient monitoring data to assess (only 1 sample).		
Colony Wash headwaters - Fort McDowell Indian Reservation 3 miles AZ15060203-998	A&We Inconclusive PBC Inconclusive Category 3 -- Inconclusive	On the Planning List due to insufficient monitoring data to assess (only 1 sample).		
East Verde River headwaters - Ellison Creek 8 miles AZ15060203-022A (Reach was split into coldwater and warmwater segments since the last assessment.)	A&Wc Inconclusive FC Inconclusive FBC Inconclusive DWS Inconclusive AgI Inconclusive AgL Inconclusive Category 3 -- Inconclusive	On the Planning List due to: 1. Insufficient monitoring events to assess (only 2 sampling events). 2. Former turbidity standard exceedances (2 of 2 samples). Monitoring will be scheduled to determine whether suspended sediment or bottom deposit violations are occurring.		
East Verde River Ellison Creek - American Gulch 20 miles AZ15060203-022B (Reach was split into coldwater and warmwater segments since the last assessment.)	**A&Ww Impaired** FC Attaining FBC Attaining DWS Attaining AgI Attaining AgL Attaining **Category 5 -- Impaired**		**Add selenium to the 2004 303(d) List due to chronic exceedances in 2 of 2 samples.**	

TABLE 24. VERDE WATERSHED — ASSESSMENT, PLANNING LIST, AND 303(d) STATUS TABLE

SURFACE WATER DESCRIPTION	2004 ASSESSMENT 5-CATEGORIES LAKE TROPHIC STATUS	2004 PLANNING LIST	STATUS OF 2002 303(d) LIST RECOMMENDATIONS FOR 2004 LIST	OTHER INFORMATION
East Verde River American Gulch - Verde River 25 miles AZ15060203-022C (Reach renamed as "C" because of split discussed above.)	A&Ww Attaining FC Attaining FBC Attaining DWS Inconclusive AgI Attaining AgL Attaining Category 2 -- Attaining Some Uses	On the Planning List due to boron exceedances (4 of 20 samples). ADEQ is considering a Use Attainability Analysis for Domestic Water Source due to high levels of naturally occurring arsenic (7 of 23 samples exceeded standards).		
Ellison Creek headwaters - East Verde River 11 miles AZ15060203-459	A&Ww Inconclusive FC Inconclusive FBC Inconclusive AgL Inconclusive Category 3 -- Inconclusive	On the Planning List (no current monitoring data). Added in 2002 due to insufficient sampling events and missing core parameters.		
Fossil Creek headwaters - Verde River 20 miles AZ15060203-024	A&Ww Inconclusive FC Inconclusive FBC Inconclusive AgL Inconclusive Category 3 -- Inconclusive	On the Planning List due to insufficient monitoring data to assess (only 2 samples).		
Grande Wash headwaters - Ashbrook Wash 6 miles AZ15060203-991	A&Ww Inconclusive **FBC Not attaining** FC Inconclusive **Category 4B– Not attaining**	On the Planning List for follow-up *Escherichia coli* monitoring (standard exceeded in 2 of 2 sampling events). **Fountain Hills WWTP has now changed disposal method to recharge, thereby eliminating discharges to this wash. *E. coli* levels are expected to meet water quality standards for the next assessment.** Also on the Planning List due to missing core parameters: dissolved cadmium, dissolved oxygen, turbidity/SSC, total mercury.		
Granite Creek headwaters - Willow Creek 13 miles AZ15060202-059A (Reach was split into coldwater and warmwater segments since the last assessment. No current data in 059B.)	A&Wc Inconclusive FC Inconclusive FBC Inconclusive AgI Inconclusive AgL Inconclusive Category 3 -– Inconclusive	On the Planning List due to: 1. *Escherichia coli* exceedances (2 of 4 sampling events for single sample maximum in 2000, 1 overall geometric mean exceedance). 2. Low dissolved oxygen (4 of 6 samples). 3. Chronic mercury exceedances (1 of 2 sampling events). 4. No current turbidity data; however, added to the Planning List in 2002 due to exceedances of the former turbidity standard in 1 of 2 samples. Monitoring will be scheduled to determine whether suspended sediment or bottom deposit violations are occurring. 5. Missing core parameters: turbidity/SSC, dissolved metals (cadmium and copper), and total metals (mercury, manganese, copper, and lead).		ADEQ anticipates that EPA will use the same criteria and place this lake on the 2004 303(d) List for dissolved oxygen (low diss. oxygen in 4 of 6 samples). For the 2002 303(d) List, EPA determined that 3 or more exceedances with less than 10 samples were sufficient to list a water as "impaired," although Arizona's Impaired Waters Identification Rule would require a minimum of 5 exceedances in 20 samples.
Munds Creek headwaters - Oak Creek 17 miles AZ15060202-415	A&Ww Inconclusive FC Inconclusive FBC Inconclusive Category 3 -- Inconclusive	On the to the Planning List due to: 1. Missing core parameters: dissolved metals (copper, cadmium, and zinc) and total mercury. 2. Insufficient seasonal representation.		
Oak Creek headwaters - West Fork Oak Creek 7 miles AZ15060202-019 Unique Waters	A&Wc Inconclusive FC Inconclusive FBC Inconclusive DWS Inconclusive AgI Inconclusive AgL Inconclusive Category 3 -- Inconclusive	On the Planning List due to 1. Former turbidity standard exceedances (2 of 8 samples). Monitoring will be scheduled to determine whether suspended sediment or bottom deposit violations are occurring. 2. Missing core parameters: total fluoride, total boron, dissolved metals (copper, cadmium, and zinc), and total metals (mercury, arsenic, chromium, lead, manganese, and copper).		

TABLE 24. VERDE WATERSHED — ASSESSMENT, PLANNING LIST, AND 303(d) STATUS TABLE

SURFACE WATER DESCRIPTION	2004 ASSESSMENT 5-CATEGORIES LAKE TROPHIC STATUS	2004 PLANNING LIST	STATUS OF 2002 303(d) LIST RECOMMENDATIONS FOR 2004 LIST	OTHER INFORMATION
Oak Creek At Slide Rock State Park 1 mile AZ15060202-018B Unique Water (Reach was renumbered since last assessment - previously 018A.)	A&Ww Inconclusive FC Inconclusive FBC Not attaining DWS Inconclusive AgI Inconclusive AgL Inconclusive Category 4A -- Not Attaining	On the Planning List for: 1. TMDL follow-up monitoring for *Escherichia coli* exceedances (269 of 3408). 2. Missing core parameters: total fluoride, total boron, dissolved metals (copper, cadmium, and zinc), and total metals (mercury, arsenic, chromium, lead, manganese, and copper). 3. Swimming closures every summer due to high bacteria counts.		*Escherichia coli* TMDL was approved by EPA in 1999. Placed on the Planning List in 2002 for TMDL follow-up monitoring. Currently initiating monitoring in support of a Phase II TMDL. Slide Rock has had intermittent swimming closures due to high bacteria counts every summer during this 5-year assessment period (1998-2002). This may also be evidence of narrative standards violations.
Oak Creek Below Slide Rock State Park - Dry Creek 20 miles AZ15060202-018C Unique Water (Reach was split into coldwater and warmwater segments since the last assessment. No current data in 018A.)	A&Ww Attaining FC Attaining FBC Attaining DWS Attaining AgI Attaining AgL Attaining Category 1 -- Attaining All Uses		Delist turbidity. Reach is now attaining its uses based on the former standard. Designated uses changed from A&Wc to A&Ww because the reach is below 5000-foot elevation; therefore the former turbidity standard was raised from 10 to 50 NTU. New and older turbidity data do not exceed 50 NTU.	
Oak Creek Dry Creek - Spring Creek 10 miles AZ15060202-017 Unique Water	A&Ww Inconclusive FC Inconclusive FBC Inconclusive DWS Inconclusive AgI Inconclusive AgL Inconclusive Category 3 -- Inconclusive	On the Planning List due to insufficient monitoring data to assess (only 2 samples). Remove turbidity from the Planning List. Designated uses changed from A&Wc to A&Ww because the reach is below 5000-foot elevation, raising the former turbidity standard from 10 to 50 NTU. New and older data do not exceed the 50 NTU.		
Oak Creek Spring Creek - Verde River 13 miles AZ15060202-016 Unique Water	A&Ww Inconclusive FC Inconclusive FBC Inconclusive DWS Inconclusive AgI Inconclusive AgL Inconclusive Category 3 -- Inconclusive	On the Planning List due to insufficient monitoring data to assess (only 2 samples). Remove turbidity from the Planning List. Designated uses changed from A&Wc to A&Ww because the reach is below 5000-foot elevation, raising the former turbidity standard from 10 to 50 NTU. New and older data do not exceed the 50 NTU.		
Oak Creek, West Fork headwaters - Oak Creek 16 miles AZ15060202-020 Unique Water	A&Wc Inconclusive FC Inconclusive FBC Inconclusive AgL Inconclusive Category 3 -- Inconclusive	On the Planning List due to insufficient monitoring data to assess (only 1 sample).		
Pine Creek headwaters - unnamed tributary at 34E21'51"/111E26'46 8 miles AZ15060203-049A (Reach was split into coldwater and warmwater segments since the last assessment.)	A&Wc Inconclusive FC Inconclusive FBC Inconclusive DWS Inconclusive AgI Inconclusive AgL Inconclusive Category 3 -- Inconclusive	On the Planning List (no current monitoring data). Added in 2002 due to insufficient monitoring data.		

TABLE 24. VERDE WATERSHED — ASSESSMENT, PLANNING LIST, AND 303(d) STATUS TABLE

SURFACE WATER DESCRIPTION	2004 ASSESSMENT 5-CATEGORIES LAKE TROPHIC STATUS	2004 PLANNING LIST	STATUS OF 2002 303(d) LIST RECOMMENDATIONS FOR 2004 LIST	OTHER INFORMATION
Pine Creek unnamed tributary at 34E21'51"/111E26'46 - East Verde River 12 miles AZ15060203-049B (Reach was split into coldwater and warmwater segments since the last assessment.)	A&Ww Inconclusive FC Inconclusive FBC Inconclusive DWS Inconclusive AgI Inconclusive AgL Inconclusive Category 3 -- Inconclusive	On the Planning List (no current monitoring data). Added in 2002 due to insufficient monitoring data.		
Pumphouse Wash headwaters - Oak Creek 8 miles AZ15060202-442	A&Wc Inconclusive FC Inconclusive FBC Attaining Category 2 -- Attaining Some Uses	On the Planning List due to missing core parameters: total mercury and dissolved metals (copper, cadmium, and zinc).		
Roundtree Canyon Creek headwaters - Tangle Creek 11 miles AZ15060203-853 (previously listed as Roundtree Creek)	A&Ww Inconclusive FC Inconclusive FBC Inconclusive AgL Inconclusive Category 3 -- Inconclusive	On the Planning List due to insufficient monitoring data to assess (only 1 sample).		
Spring Creek Coffee Creek - Oak Creek 7 miles AZ15060202-022	A&Ww Inconclusive FC Inconclusive FBC Inconclusive AgI Inconclusive AgL Inconclusive Category 3 -- Inconclusive (not assessed)	On the Planning List due to insufficient monitoring data to assess (only 1 sample).		
Sycamore Creek Cedar Creek - Verde River 6 miles AZ15060202-026	A&Ww Inconclusive FC Inconclusive FBC Inconclusive AgI Inconclusive AgL Inconclusive Category 3 -- Inconclusive	On the Planning List due to Insufficient monitoring data to assess (only 1 sample). Added in 2002 due to missing core parameter.		
Sycamore Creek headwaters - Verde River 13 miles AZ15060203-055	A&Ww Inconclusive FC Inconclusive FBC Inconclusive AgL Inconclusive Category 3 -- Inconclusive	On the Planning List due to insufficient monitoring data to assess (only 1 sample).		
Verde River Granite Creek - Hell Canyon 16 miles AZ15060202-052	A&Ww Inconclusive FC Inconclusive FBC Inconclusive AgI Inconclusive AgL Inconclusive Category 3 -- Inconclusive	On the Planning List due to insufficient monitoring data to assess (only 1 sample).		
Verde River Hell Canyon - unnamed reach 15060202-065 6 miles AZ15060202-038	A&Ww Inconclusive FC Inconclusive FBC Inconclusive AgI Inconclusive AgL Inconclusive Category 3 -- Inconclusive	On the Planning List due to insufficient monitoring data to assess (only 1 sample).		

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SURFACE WATER DESCRIPTION	2004 ASSESSMENT 5-CATEGORIES LAKE TROPHIC STATUS	2004 PLANNING LIST	STATUS OF 2002 303(d) LIST RECOMMENDATIONS FOR 2004 LIST	OTHER INFORMATION
Verde River unnamed reach 15060202-065 - Railroad Draw 11 miles AZ15060202-037	A&Ww Attaining FC Attaining FBC Attaining AgI Attaining AgL Attaining Category 1 -- Attaining All Uses	Remove turbidity from the Planning List. Current turbidity data indicate designated uses are being attained (3 exceedances in 17 samples).		Turbidity TMDL approved by EPA in 2002. Added to the Planning List in 2002 for TMDL follow-up monitoring.
Verde River Sycamore Creek - Oak Creek 25 miles AZ15060202-025	A&Ww Inconclusive FC Attaining FBC Inconclusive AgI Attaining AgL Attaining Category 2 -- Attaining Some Uses	On the Planning List due to: 1. Chronic mercury exceedance (1 of 1 sampling event). 2. *Escherichia coli* exceedance (1 of 25 sampling events, occurred in 2000). Remove turbidity from the Planning List. Current turbidity data indicate designated uses are being attained (3 exceedances in 17 samples).		Turbidity TMDL approved by EPA in 2002. Added to the Planning List in 2002 for TMDL follow-up monitoring
Verde River Oak Creek - Beaver Creek 13 miles AZ15060202-015	A&Ww Not attaining FC Inconclusive FBC Inconclusive AgI Inconclusive AgL Inconclusive Category 4A – Not attaining	On the Planning List due to: 1. Insufficient monitoring data to assess (only 2 monitoring events). 2. Turbidity TMDL follow-up monitoring. Monitoring will be scheduled to determine whether suspended sediment or bottom deposit violations are occurring.		Turbidity TMDL approved by EPA in 2002. Added to the Planning List in 2002 for TMDL follow-up monitoring.
Verde River Beaver Creek - HUC boundary 15060203 0.5 miles AZ15060202-001	A&Ww Not attaining FC Inconclusive FBC Inconclusive AgI Inconclusive AgL Inconclusive Category 4A – Not attaining	On the Planning List for: 1. Insufficient monitoring data (no current monitoring data). 2. Added in 2002 for turbidity TMDL follow-up monitoring. Monitoring will be scheduled to determine whether suspended sediment or bottom deposit violations are occurring.		Turbidity TMDL approved by EPA in 2002. Added to the Planning List in 2002 for TMDL follow-up monitoring.
Verde River HUC boundary 15060203 - West Clear Creek 6 miles AZ15060203-027	A&Ww Inconclusive FC Attaining FBC Inconclusive AgI Attaining AgL Attaining Category 2 -- Attaining Some Uses	On the Planning List due to: 1. *Escherichia coli* exceedance in 1 of 5 sampling events. Exceedance occurred in 1998, do not have 3 years of sampling after. 2. Missing core parameters: dissolved metals (copper, cadmium, and zinc).		Turbidity TMDL approved by EPA in 2002. Not added to the Planning List in 2002 because turbidity was attaining uses (no exceedances in 6 samples).
Verde River West Clear Creek - Fossil Creek 24 miles AZ15060203-025	A&Ww Not attaining FC Attaining FBC Attaining AgI Attaining AgL Attaining Category 4A -- Not attaining	On the Planning List for: 1. TMDL follow-up monitoring for turbidity exceedances (6 of 17 samples). Monitoring will be scheduled to determine whether suspended sediment or bottom deposit violations are occurring. 2. Chronic selenium exceedance (1 of 1 sampling event).		Turbidity TMDL for adjacent reaches (AZ15060202-037 through AZ15060202-027) approved by EPA in 2002. Turbidity loadings for this reach are expected to be addressed through implementation of the TMDL. Therefore, assessed as "not attaining" and added to the Planning List for TMDL follow-up moniotirng.
Verde River Tangle Creek - Ister Flat 4 miles AZ15060203-018	A&Ww Inconclusive FC Attaining FBC Inconclusive AgI Attaining AgL Attaining Category 2 - Attaining Some Uses	On the Planning List due to: 1. Former turbidity standard exceedances (5 of 24 samples). Monitoring will be scheduled to determine whether bottom deposit violations are occurring. 2. *Escherichia coli* exceedance (in 2000).		EPA may use exceedances of the former turbidity standard as an indicator of narrative standards violations and place this reach on the 2004 303(d) List due to turbidity.
Verde River Horseshoe Dam - Alder Creek 11 miles AZ15060203-008	A&Ww Inconclusive FC Inconclusive FBC Inconclusive AgI Inconclusive AgL Attaining Category 2 -- Attaining Some Uses	On the Planning List due to missing core parameters: *Escherichia coli*, total boron, dissolved metals (copper, cadmium, and zinc), and total mercury.		

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SURFACE WATER DESCRIPTION	2004 ASSESSMENT 5-CATEGORIES LAKE TROPHIC STATUS	2004 PLANNING LIST	STATUS OF 2002 303(d) LIST RECOMMENDATIONS FOR 2004 LIST	OTHER INFORMATION
Verde River Bartlett Dam - Camp Creek 7 miles AZ15060203-004	**A&Ww Impaired** FC Attaining FBC Attaining DWS Attaining AgI Attaining AgL Attaining **Category 5 -- Impaired**		**Add copper to the 2004 303(d) List due to exceedances of chronic copper standards in 4 of 80 sampling events.** **Add selenium to the 2004 303(d) List t due to exceedances in 4 of 23 sampling events.**	
Verde River Camp Creek - Sycamore Creek 12 miles AZ15060203-003	A&Ww Inconclusive FC Inconclusive FBC Attaining DWS Inconclusive AgI Inconclusive AgL Inconclusive Category 2 -- Attaining Some Uses	On the Planning List due to missing core parameters: dissolved cadmium and total metals (mercury, arsenic, chromium, lead, manganese, and copper).		
Verde River Sycamore Creek - Salt River 7 miles AZ15060203-001	A&Ww Inconclusive FC Inconclusive FBC Inconclusive DWS Inconclusive AgI Inconclusive AgL Inconclusive Category 3 –- Inconclusive	On the Planning List due to insufficient monitoring events for core parameters (although 3 sampling events, there were only one or two samples for each of the core parameters).		
Webber Creek headwaters - East Verde River 14 miles AZ15060203-058	A&Wc Inconclusive FC Inconclusive FBC Inconclusive AgL Inconclusive Category 3 -- Inconclusive	On the Planning List (no current monitoring data). Added in 2002 due to insufficient monitoring data.		
West Clear Creek Meadow Canyon - Verde River 65 miles AZ15060203-026B (Reach was split into coldwater and warmwater segments since the last assessment. No current data in 026A.)	A&Ww Inconclusive FC Inconclusive FBC Inconclusive AgI Inconclusive AgL Inconclusive Category 3 -- Inconclusive	On the Planning List due to missing core parameters: total boron, *Escherichia coli*, dissolved zinc, and total metals (mercury, manganese, copper, and lead).		
Wet Beaver Creek Long Canyon - Rarick Canyon 7 miles AZ15060202-004	A&Wc Inconclusive FC Inconclusive FBC Inconclusive AgI Inconclusive AgL Inconclusive Category 3 -- Inconclusive	On the Planning List due to missing core parameters: total boron, *Escherichia coli*, dissolved metals (copper and zinc), and total metals (mercury, manganese, copper, and lead).		
Wet Beaver Creek Rarick Canyon - Dry Beaver Creek 7 miles AZ15060202-003	A&Wc Inconclusive FC Inconclusive FBC Inconclusive AgI Inconclusive AgL Inconclusive Category 3 -- Inconclusive	On the Planning List due to insufficient monitoring data to assess (only 1 sample).		
Wet Bottom Creek headwaters - Verde River 20 miles AZ15060203-020	A&Ww Inconclusive FC Inconclusive FBC Inconclusive Category 3 -- Inconclusive	On the Planning List. No current monitoring data. Added in 2002 due to insufficient monitoring data.		

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SURFACE WATER DESCRIPTION	2004 ASSESSMENT 5-CATEGORIES LAKE TROPHIC STATUS	2004 PLANNING LIST	STATUS OF 2002 303(d) LIST RECOMMENDATIONS FOR 2004 LIST	OTHER INFORMATION
VERDE WATERSHED -- LAKE ASSESSMENTS				
Bartlett Lake 2375 acres AZL15060203-0110	A&Ww Inconclusive FC Attaining FBC Inconclusive DWS Attaining AgI Attaining AgL Attaining Category 2 -- Attaining Some Uses Trophic status -- Mesotrophic - Hypereutrophic	On the Planning List due to missing core parameters: *Escherichia coli* and dissolved metals (copper, cadmium, and zinc).		
Fountain Lake 25 acres AZL15060203-0003	A&Ww Inconclusive FBC Inconclusive FC Inconclusive Category 3 -- Inconclusive Trophic status not calculated	On the Planning List due to insufficient monitoring data to assess (only 1 sample).		
Granite Basin Lake 7 acres AZL15060202-0580	**A&Ww Inconclusive** FC Attaining FBC Inconclusive AgI Inconclusive AgL Inconclusive **Category 2 – Attaining Some Uses** Trophic status -- Eutrophic	On the Planning List due to: 1. High pH **(2 of 6 samples).** 2. Chronic ammonia exceedance (1 of 6 sampling events). 3. Missing core parameters: *Escherichia coli* and dissolved metals (copper, cadmium, and zinc).	**Delist dissolved oxygen. EPA placed this lake on the 2002 303(d) List due to 3 violations in 7 samples. Violations have since been determined to be natural due to lake turnover.**	
Green Valley Lake 13 acres AZL15060203-0015	A&Ww Inconclusive FC Inconclusive PBC Inconclusive Category 3 -- Inconclusive Trophic status not calculated	On the Planning List (no current monitoring data). Added in 2002 due to insufficient monitoring data.		
Horseshoe Reservoir 2000 acres AZL15060203-0620	A&Ww Inconclusive FC Inconclusive FBC Inconclusive AgI Inconclusive AgL Inconclusive Category 3 -- Inconclusive Trophic status not calculated	On the Planning List due to: 1. Former turbidity standard exceedances (4 of 18 samples). Further investigation into the causes and sources of turbidity will be scheduled during the next monitoring cycle for this watershed. 2. Missing core parameters: total boron, *Escherichia coli*, dissolved metals (copper, cadmium, and zinc), and total metals (mercury, manganese, copper, and lead).		
J.D. Dam Lake 29 acres AZL15060202-0700	A&Wc Inconclusive FC Attaining FBC Inconclusive AgI Attaining AgL Attaining Category 2 -- Attaining Some Uses Trophic status – Eutrophic	On the Planning List due to: 1. Low pH (1 of 5 samples). 2. Missing core parameters: *Escherichia coli* and dissolved metals (copper and cadmium).		
Pecks Lake 95 acres AZL15060202-1060	A&Wc Not attaining FC Attaining FBC Inconclusive AgI Attaining AgL Attaining Category 4A -- Not attaining Trophic status -- Eutrophic	On the Planning List due to: 1. TMDL follow-up monitoring for low dissolved oxygen (2 of 7 samples). 2. Missing core parameters: *Escherichia coli*, turbidity, and dissolved metals (cadmium, copper, and zinc).		Nutrient TMDL to address high pH and low dissolved oxygen problems was approved by EPA in 2000. Placed on the Planning List in 2002 for TMDL follow-up monitoring.

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SURFACE WATER DESCRIPTION	2004 ASSESSMENT 5-CATEGORIES LAKE TROPHIC STATUS	2004 PLANNING LIST	STATUS OF 2002 303(d) LIST RECOMMENDATIONS FOR 2004 LIST	OTHER INFORMATION
Perkins Tank 4 acres AZL15060202-1080	A&Wc Inconclusive FC Inconclusive FBC Inconclusive AgL Inconclusive Category 3 -- Inconclusive Trophic status not calculated	On the Planning List due to: 1. Insufficient monitoring data to assess (only 2 samples). 2. Low dissolved oxygen (2 of 2 samples). 3. Former turbidity standard exceedance (1 of 1 sample). Further investigation into the causes and sources of turbidity will be scheduled during the next monitoring cycle for this watershed.		
Scholze Lake 22 acres AZL15060202-1350	A&Ww Inconclusive FC Inconclusive FBC Inconclusive AgL Inconclusive Category 3 -- Inconclusive Trophic status not calculated	On the Planning List due to: 1. Low dissolved oxygen (1 of 3 samples). 2. Chronic lead exceedance (1 of 1 sampling event). 3. Total nitrogen exceedance (2 of 4 samples). 4. Former turbidity standard exceedance (1 of 3 samples). Further investigation into the causes and sources of turbidity will be scheduled during the next monitoring cycle for this watershed. 5. Missing core parameters: *Escherichia coli*, dissolved metals (copper and cadmium), and total metals (mercury, copper, and lead).		
Stehr Lake 20 acres AZL15060203-1480	A&Ww Inconclusive FC Inconclusive FBC Inconclusive AgL Inconclusive Category 3 -- Inconclusive Trophic status – Mesotrophic	On the Planning List (no current monitoring data). Added in 2002 due to missing core parameter.		
Stoneman Lake 125 acres AZL15060202-1490	A&Wc Not attaining FC Attaining FBC Not attaining AgI Not attaining AgL Not attaining Category 4A -- Not Attaining Trophic status -- Mesotrophic	On the Planning List for: 1. TMDL follow up monitoring for high pH (6 of 10 samples). 2. Arsenic exceedance (2 of 8 samples). 4. Missing core parameter: *Escherichia coli.*		Nutrient TMDL to address low dissolved oxygen and high pH was approved by EPA in 2000. Placed on the Planning List in 2002 for TMDL follow-up monitoring. Note that the lake has been totally or near dry for the last two years due to drought conditions.
Sullivan Lake 1 acres AZL15060202-3370	A&Ww Inconclusive FC Inconclusive FBC Inconclusive AgI Inconclusive AgL Inconclusive Category 3 -- Inconclusive Trophic status not calculated	On the Planning List (no current monitoring data). Added in 2002 due to high pH (1 of 3 samples) and missing core parameters.		
Watson Lake 152 acres AZL15060202-1590	A&Ww Inconclusive FC Inconclusive FBC Inconclusive AgI Inconclusive AgL Inconclusive Category 3 -- Inconclusive Trophic status – Eutrophic	On the Planning List due to: 1. Low dissolved oxygen (1 of 5 samples). 2. High pH (2 of 5 samples). 3. Total nitrogen exceedance (2 of 5 samples). 4. Fish kill in 2000. 5. Missing core parameters: total boron, *Escherichia coli*, turbidity, dissolved metals (copper and cadmium), and total metals (mercury, copper, lead, and zinc).		Fish kill in 2000 associated with a blue-green algae and high pH (9.5 - 9.8). This algae can produce a toxin that can kill fish and is associated with lakes with high pH and elevated nutrients. This fish kill may be evidence of a narrative nutrient standard violation.

TABLE 24. VERDE WATERSHED — ASSESSMENT, PLANNING LIST, AND 303(d) STATUS TABLE

SURFACE WATER DESCRIPTION	2004 ASSESSMENT 5-CATEGORIES LAKE TROPHIC STATUS	2004 PLANNING LIST	STATUS OF 2002 303(d) LIST RECOMMENDATIONS FOR 2004 LIST	OTHER INFORMATION
Whitehorse Lake 41 acres AZL15060202-1630	A&Wc Impaired FC Inconclusive FBC Inconclusive DWS Attaining AgI Attaining AgL Attaining Category 5 -- Impaired Trophic status -- Eutrophic	On the Planning List due to: 1. Chronic ammonia exceedance in 2 of 13 samples events (15% exceed). 2. Former turbidity standard exceedances (9 of 9 samples). Further investigation into the causes and sources of turbidity will be scheduled during the next monitoring cycle for this watershed. 3. Fish kill in 1999. 4. Missing core parameters: *Escherichia coli*, dissolved metals (copper, cadmium, and zinc).	EPA placed this lake on the 2002 303(d) List for low dissolved oxygen based on 5 of 11 exceedances. Arizona's Impaired Water Identification Rule requires a minimum of 20 samples to base a listing decision for dissolved oxygen. However, once listed the lake cannot be delisted until a TMDL is complete or dissolved oxygen data indicate designated uses are being attained. Current data show low dissolved oxygen in 4 of 14 samples.	Fish kill in 1999 related to algal bloom and low dissolved oxygen which may be evidence of a narrative standard violation. EPA may use exceedances of the former turbidity standard as an indicator of narrative standards violations and place this reach on the 2004 303(d) List due to turbidity.